This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

Ysa
YEI

AN

ESSAY

ON

CONSCIOUSNESS;

OR,

A SERIES OF EVIDENCES

OF A

DISTINCT MIND,

NEW YORK
PUBLIC
LIBRARY

BY JOHN FEARN.

THE SECOND EDITION, CORRECTED AND ENLARGED.

IT IS NOT WORTH WHILE TO BE CONCERNED WHAT HE SAYS OR THINKS, WHO SAYS OR THINKS *only* AS HE IS DIRECTED BY ANOTHER.——*Locke*.

LONDON:
PRINTED BY D. COCK AND CO. DEAN STREET, SOHO;
AND PUBLISHED BY MESSRS. LONGMAN, HURST, REES, ORME, AND BROWN, PATERNOSTER ROW; AND BY MESSRS. BLACK, PARRY, AND KINGSBURY, LEADENHALL STREET.
1812.

ADVERTISEMENT.

IN first submitting this Essay to the Press, about a Year ago, I hastily embraced the earliest return of tolerable health, after several Years of indisposition particularly hostile to all such subjects.——This step, opposed by such an overwhelming difficulty in augmentation of others sufficiently discouraging, I certainly would not have presumed upon, but from apprehension of changes which might have utterly prevented the design. Since then, however, I have been rather better enabled to indulge the subject; and, besides having corrected the first matter, have embraced some additional ground, insomuch that the present is rather a new Work, than a Second Edition of the old. At the same time I have the satisfaction to find, (better than my hopes) that the task, herein, has not been to retract; but only to rectify, illustrate, and enlarge.

The Work is divided into four Parts, now separately titled, a distinction the want of which rendered the former Edition less perspicuous.

London, Dec. 1811.

PREFACE.

The Philosophy of the Mind has two grand and very different Objects.——One of these is the perfect evolution and use of our reasoning Mode in the attainment of truth in general:—the other, to ascertain whether we are endowed with a distinct Principle of Feeling and Action, or are but mere *organic* Beings.

The first mentioned of these Objects is now beginning to be pursued upon Principles which promise it a due share of public estimation; but very different is the prospect in viewing the other, though in itself by far the most important Object, not only as it regards our hope of futurity, but in regard to our *Morals* and consequent *present happiness.*

If we observe the radical springs which *really* govern human Actions, I think it will appear, that *Religion*, however just and high its claim, can never be expected either to *reform*, or *retain*, a People *whose Philosophy is unfavourable to Virtue.*——In an advanced community Philosophy often serves the Great for Religion. The doctrines and conclusions of scientific Men, concerning our *Nature* and *expectations, will be spoken of* in the higher circles, though few may study or understand them; and a deference to what passes for Science,—a vanity of thinking beyond the vulgar,—a dislike of restraint,—and other such seducing causes, easily deceive those who are willingly cheated, into the maxim, that Faith is matter of policy, and a rule for their inferiors.——Here we may apply the maxim to *Morals*, as well as to Physics, that nothing can act but *where it is*.——Religion, however felt in the *middle ranks*, (even granting it generally so felt) cannot restore the purity of a stream whose *Source is poisoned:* and when we reflect that *all* ranks in life incline to affect the free opinions and Vices of those next above them, I think it may be considered a general truth, that *the moral conduct of an advanced People will ever be strongly influenced by their Philosophy*.

This being kept in view, if now we turn to the state of philosophical opinion in the World at large, we shall observe, that a great proportion of those who engross both *intellectual* and *physical Power* are morally influenced by the persuasion that they cannot survive the grave; and the untaught Millions who take their own future annihilation upon hearsay from their superiors, form an awful, and, doubtless, an *encreasing* body, to a head so truly formidable.—Happily, we are not yet called upon to acknowledge this the *prevalent* opinion in our own country; but if it ever has prevailed *in any*, and if it but *partially exist* in ours, (which is but too evident by the *sure test of practical consequences*, even where observances try to disguise it), it would surely be rendering great benefit to society, at large, if we could convince men of this persuasion, of their fatal error; or, even, deter others, whose Principles are not yet fixed, from falling into it.——It scarce need be added that the open avowal of many among us, and the vast increase of strangers, now give an interest to the subject far beyond that of any former time.

from the Non-extensionist since his *creed* proclaims that he never makes the attempt; while also it is obvious, that it is *only* from the supposition of *Non-extension* that we can suppose ourselves shut out from the hope of success. Upon the rational supposition of the contrary we are forbid to despair, by observing *how late* in the existence of Mankind the most wonderful discoveries have been made.——To those who will not yield the point it is matter of consolation, that our most enlightened Philosophers who *do not* acknowledge the Extension of the Mind, have felt themselves obliged to suppose an "*intimate connexion*" between it and the Body, which, if it expresses any thing, amounts to the Mind's *locality*, and is no less than a virtual breach of the creed of *Non-extension*, because this last essentially includes *non-relation to place*.

As to the *philosophical propriety* of inquiring after the *manner* of the connexion between Body and Mind, the most eminent living Author we have, though admirably cautious in concession, admits that it is a very proper object of philosophy to "*ascertain the laws which regulate the connexion*:" and though he does not encourage the attempt "to explain in what manner they are united," he has, however, not disdained to notice the supposition of "*a subtle fluid in the nerves* as certainly less repugnant to the general analogy of our frame, than that by which it has been supplanted."——Now such a concession, however limited, coming from that authority, shews how loud is the demand of *rational conception* for *some mode of process* between *Mind* and *Body*.

Whoever has perused the list (contained in a note in the introduction to Professor Stewart's Elements) of subjects proper for spebut, *in the Science of Mind who has adhered to it?*——The justly esteemed Philosopher already named, follows only one branch of the subject, namely *conscious phenomena*, having for its end the *perfect management of reason*, and the consequent general advancement of Knowledge, in which branch we may avoid every thing hypothetical: but nothing seems more obvious in the writings of this Philosopher than that he holds the *supposition* that there is *nothing "common in the nature or attributes of Mind and of Matter."*—Now, such *Immaterialists* as *Newton*, *Locke*, *Clarke*, and *Price* may well ask, *how* does any man *know* that there can be *nothing common in Mind* and *Matter?* and what is this assumption more than *mere Hypothesis*, and that, absolutely, void of any *positive* evidence?

If it be here said that we have no positive evidence *for* the Extension of the Percipient, any more than against it, this is the point at issue; it being part of the task I have in hand to shew, that we have *undeniable evidences for it.*—These have already been shewn (though not sufficiently) in the reasonings of *Locke*, *Berkeley*, and *Hume*; and this having been *overruled*, by their Successors, I take to arise chiefly from the *previous* influence of *Non-extension*.——The following statement briefly shews the point whereon hangs this difference in opinions.

The three Philosophers *Locke*, *Berkeley*, and *Hume*, were agreed as to one *fact* of the highest importance in this inquiry; which is, that we *feel extended impressions primarily*.——But, in regard to such *primary feelings* they suffered an erroneous judgment; for instead of supposing that in such case the Mind must contain an *impression*, together with a *feeling*, and that it is the *impression only* which can resemble the Extension of the pressing *Body*, they judged that the *feeling* (had in such case) *resembles Extension.*——This oversight (originally Mr. Locke's) was acted upon by Berkeley, who, *viewing it under the previous bias* of a *Non-extensionist*, conceived Extension itself to be nothing but a *deception*, and consequently elaborated the *Ideal Theory*. And the same false judgment was assumed, and followed up, by Hume, to his discredence of *Minds* as well as *Bodies*.

Bishop Berkeley, though redoubted in the Mind's Non-extension, was nevertheless convinced that when it is impressed we have *something* in it which resembles Extension, or, in fact, something that *is extended*.—This left him no choice but to conceive either the *Percipient itself extended*, or, else, that *Extension* is but a *mere ideal Thing*: and he adopted the *latter*, in the face of the *fact* and against his own rare general acuteness; in which we have a signal instance of the influence of opinion *previously established.*————It follows, however, that if we uphold *real Extension* against Berkeley *we must, with it, embrace, the Extension of the Percipient*. The evidences leave no alternative.

The independent decision of *Mr. Hume* is here valuable. Though he doubted the existence of both Body and Mind, yet he was so convinced of our *primary feeling* from *impressions*, as to assert positively, that if the Mind is a Substance at all, *it is extended.* Now, as he was equally *profound* and *sceptical*, the circumstance of his conviction ought to caution us upon what ground we condemn his judgment.

But, notwithstanding the unanimous decision of the three illustrious persons above named, philosophical opinion has since their time suffered a great change in regard to the *fact in question.*————*Doctor*

Reid, in his laudable exertions to refute the *Ideal Theory*, has, I conceive, been carried beyond the point of fact, by denying that we *primarily* feel extended impressions, or, in other words, by *sinking* the *primary feeling*, into a mere *consequent inference* suggested by the understanding; in doing which, it is here important to observe, his cause did not gain any thing, for I shall have to argue that the refutation stands upon equal ground whether the Idea of Extension is got by *inference*, or, by *primary* fact.——His doctrine, however, is now adopted among those who in Britain take the lead in the Philosophy of Mind; and because an erroneous inference, *quite foreign to the feeling*, has proved the source of errors, those who have opposed these errors have thought necessary to consider the *primary fact itself* disproved.——

Doctor Hutcheson is acknowledged to be the *first* who discovered (or rather *conceived*,) that our *Idea* of Extension is got in the way of *inference consequent upon* a Sensation, and *not in Sensation* or primary fact itself; and his view of the matter seems to have been embraced *as being supposed essential in the refutation of Berkeley's errors*; but I shall endeavour to shew that Doctor Hutcheson's discovery does not amount to so much, for the *fact*, though certainly *complex*, is as certainly *primary*.—And it is to be hoped that whoever will inquire into the merits of the case must find, that the *fact of primary feeling from Extension* is wholly *independent of*, and *foreign to*, any question about *resemblances*; and that such *primary feeling* (when demonstrated) gives no countenance to the *Ideal Theory*, nor to any but satisfactory conclusions.

It is not to be expected that Materialists, who possess so large a share of *physical Science*, and resolve to be guided by it, will ever give attention (far less assent) to a *Sublime Mystery*: but if the Hypothesis of a *Cerebral Mind* be *physically* exploded, and another reared upon a correspondence of conscious with physical Facts, it must have a fair claim to their consideration, and be accepted, or condemned, upon rational ground.

Several years ago I was struck by the persuasion, that all the *Phenomena of Consciousness are governed*, in the Mind, by a Law of our Nature, the *regular operation of which* has never claimed attention.——Contemplating a Succession of *Facts*, under this *Law*, I was led to an Hypothesis round which, I think, all conscious Processes rally in strict conformity; and this subject I have in the following papers attempted to illustrate.——In addition to this it appeared proper to examine the *physical probability* of the doctrine of a *Cerebral Mind*, in order to shew that the Brain *does not perform such Motions* as are *supposed* to give Ideas. And I have, to this, added some mere conjectures on the use of the Brain, in conformity to its own structure and to the Hypothesis advanced.

The principal *original* considerations herein advanced are,—some of the *Evidences* of the *Extension* of the Mind, or of the *physical co-operation* of Mind and Body — the *order* and *dependence* of our different *Modes of Feeling—the Law* of *Interest*—the Evidence of *synchronous Ideas*—the *conscious* and *physical correspondence* in the *Order* of the external Senses—the *mathematical relation* among sensual Processes—the general *nature* and *occasion* of the Passions—and the *spherule Hypothesis*, including that of *mental Undulations*.

———Whoever glances at these particulars, in the slightest degree, must perceive that my labour has not been confined to that of inventing an Hypothesis to suit any of the views *heretofore* taken of the Subject; but that I have devoted attention to contemplate the *phenomena of the Mind* in a way altogether different from that which has led to any of the Theories yet advanced.

It is far from my meaning to say that either of these are the better for being new—I only notice their *originality* as *Fact*, and respectfully leave it to others to pronounce upon them: requesting that when I appear to express myself with unbecoming confidence, it may be considered as only marking the degree of opinion, but always open to the correction of those who are competent.——What is offered can be secure of impunity in only one point, that nobody can impute to such unproductive labours any motive other than the true one.

GENERAL CONTENTS.

THE DISCUSSION.

Chap. Page
I. Of the conceivable Existence, and Nature, of the Mind. - 1
II. Of Consciousness or universal Percipience;—of Opinions now held on this Subject, opposed to that of Locke;—and, of the Sources of our Knowledge. - - - - - - 15
III. Of the Evidences and Grounds of human Knowledge;—and, of the tenable Principles of *Locke*, *Berkeley*, and *Hume*, contrasted with doctrine of later Philosophers. - 35
IV. A Summary of elementary Propositions which depend upon the foregoing arguments. - 95
V. An Examination of the Nature of the most general Affections of Mind. - - - - - - - - - 100

THE FIRST REGULAR VIEW.

Chap.
I. Of the Susceptibility of the Mind. - - - - - - 115
II. Of the Motivity of the Mind. - - - - - 130
III. Of the Co-operation of the Mind with the external World. 142
IV. Of the Capacity of the Mind for Synchronous Perceptions. 161
V. Of the physical Structure of the Mind. - - - - - 172
VI. Of the general Nature of the Flexure, and Repulsion, of the Mind. - - - - - - - - - - - 183
VII. Of the conscious Division of Affections, into Pleasant and Painful. - - - - - - - - - - 189

CHAP.		PAGE
VIII.	Of various Cases, explained by the Hypothesis of a Spherule.	197
IX.	Of the external Senses, in general.	202
X.	Of the Senses Touch, Taste, and Smell.	215
XI.	Of the Sense of Hear.	218
XII.	Of the Sense of Sight.	225
XIII.	A Retrospect of the Subject advanced.	249
XIV.	Of the conscious and physical Processes of sensual Pleasure and Pain.	252

THE SECOND VIEW.

CHAP.		
I.	Of Memory.	279
II.	Of the relative Vividness, Precision, and Durability, of Ideas.	291
III.	Of the Origin, and Nature, of the Passions.	305
IV.	Of Dream and Reverie.	325
V.	Of Perception, by Motion, contrasted with other Theories.	336

EXAMINATION OF THE DOCTRINE OF A CEREBRAL MIND.

CHAP.		
I.	A View of Doctor Hartley's Theory of Vibrations.	346
II.	Of the Opposition of the Spherule and the Vibratory Hypothesis.	359
III.	Conjectures regarding the Instrumentality of the Brain.	361
IV.	Final Retrospect and Conclusion.	371

PARTICULAR CONTENTS.

THE DISCUSSION.

CHAPTER I.

Sect. Page
1. Introductory Speculation 1
2. Matter is defined but was never detected 6
3. Body and Matter are different Things .. 9
4. The Mind depends upon the Body 11

CHAPTER II.

Sect.
1. Consciousness is Knowledge 15
2. Knowledge is Single 18
3. Feelings or Ideas are not Objects, but *Modes*, of Consciousness 21
4. Reflection is direct Observation; and both express only Attention to single Percipience 26
5. Knowledge is occasioned by Motion, but has two Sources 32

CHAPTER III.

Sect.
1. There are Three Classes of Evidence 35
2. The Mind is agitated by Process, therefore it is extended 39
3. The Existence of Body is inferred after change of Sensations 40
4. Many Notions called instinctive are false 43
5. Extension is learnt in Primary Fact, therefore the Mind is extended 46
6. Error prevails as to the Notion of Extension, which shewn, proves the Mind extended 53
7. We see Extension 57
8. We do not see Colour 59
9. Visible Extension is both seen and felt .. 61
Sect. Page
10. Feeling from Extension ranks with Pleasure and Pain, as a primary conscious Fact 64
11. Extension and Solidity are differently vouched 67
12. Feeling from Extension is a different Thing from impression from Extension 68
13. The Mind exists extended and permanent 70
14. We do not perceive Bodies themselves 71
15. Extension does not necessarily comprehend Discerptibility 75
16. The Senses in general betray Extension 76
17. Sensations are complex Feelings 81
18. Body and Mind act by common Process which proves both alike extended 84
19. Physical Reciprocity is demonstrated .. 86
20. Additional distinct Indication 88
21. Visible Figures are of the same Species with correspondent tangible Figures 89

CHAPTER IV.

A Summary of Elementary Propositions which depend upon the foregoing arguments 95

CHAPTER V.

Sect.
1. The Mind is affected by Feeling and by Action 100
2. Will and its Office .... ib.
3. All Knowledge is Feeling 102
4. Knowledge from Reasoning is Feeling .. 105
5. Imagination is Feeling 108

THE FIRST REGULAR VIEW.

CHAPTER I.

Sect.
1. The Mind is passive and active 115
2. There are Seven Modes of Feeling 116
3. Sensation is the First Mode 117
4. Interest, the Second Mode .... ib.
5. Memory, the Third Mode 119
Sect.
6. Understanding, the Fourth Mode 121
7. Passion, the Fifth Mode 123
8. Imagination, the Sixth Mode 125
9. Feeling from Extension 127
10. Summary of the Modes of Feeling 128

Sect. CHAPTER II. Page

1. Motives to Action 130
2. Actual Power of Mind 133
3. Voluntary and Incontinent Acts 135
4. Reason and Instinct one 137
5. Reason occasions Passions and Desires 140

Sect. CHAPTER III.

1. Conscious Affections 142
2. Flexibility of the Mind 145
3. Partition of the Sources of Affections 147
4. Play of Affections 148
5. Law of Interest in Affections 149
6. Nature and Power of Interest 151
7. Weak Interests 152
8. Accidental and Legal cases of Expulsion 153
9. Gradual Process of the Law of Interest 155
10. Extraordinary Interests 159

Sect. CHAPTER IV.

1. An Idea is a Group of Ideas 161
2. Proof of Synchronous Vision 163
3. Synchronous Ideas are often numerous 166

Sect. CHAPTER V.

1. The occasion of the Hypothesis 172
2. The Foundation of the Hypothesis 176
3. The Hypothesis 179
4. Lesser Suppositions .... ib.
5. Capacity and Region of Perception 181

Sect. CHAPTER VI.

1. Physical Deformity of the Mind 183
2. Physical Tension of the Mind 184
3. The Constitution of the Mind different from Matter 185

Sect. CHAPTER VII.

1. Interests continually vary 189
2. Intelligence and Interest distinct Conscious Facts 191
3. Motions change Interests, and exist with Tension and Flexure 193
4. Peculiar Capability of a Spherule 195

CHAPTER VIII. Page

Various Cases explained by the Hypothesis of a Spherule 197

Sect. CHAPTER IX.

1. The Order of the Senses 202
2. Hypothesis of Undulation and Succession 207
3. Physical Analogy of mental Undulations 211
4. How do the Senses convey different Feelings? 213

Sect. CHAPTER X.

1. The Sense of Touch 215
2. Taste and Smell 216

Sect. CHAPTER XI.

1. The Province of Hear 218
2. Capacity of Hear 219
3. Interest of Succession in Hear 220

Sect. CHAPTER XII.

1. The Province of Sight 225
2. Capacity of Sight 226
3. Physical Analogy of Sight 227
4. Physical Process of Sight 229
5. Evidence of Visual Undulations 232
6. Sight and Touch from one Impulse 234
7. Undulations of Colour have no Sensible duration 236
8. Sight may play on Touch 237
9. Interest of Succession in Sight 238
10. Reflection on the Sense of Sight 240
11. The appearance of Colour is Colour 242

CHAPTER XIII.

A Retrospect of the Subject advanced 249

Sect. CHAPTER XIV.

1, Sensual Pleasure 252
2. Physical Process in Sensual Pleasure 253
3. Pleasure succeeds Pain 259
4. Uneasiness is the ordinary State 261
5. Pleasure changed to Pain 263
6. Pain changed to Pleasure 264
7. The Nature and Motion of Sensual Pain 267

THE SECOND VIEW.

Sect. CHAPTER I.

1. Brain is not the Agent of Memory 272
2. Interest gives Memory 274
3. Memory is Passive and exists with Motion 276

Sect.

4. Memory is revived Feeling 279
5. Retention is not from Vibration 281
6. Association is not from Vibration 283

Sect. Page
7. Memory is gratuitous 287
8. Successive Memory 288
9. Reflection on Memory 289

Sect. CHAPTER II.

1. Interest gives Vividness of Ideas 291
2. Interest gives Retention 296
3. Visual Ideas not correct 301

Sect. CHAPTER III.

1. All Passions are occasioned by Judgments 305
2. Few Passions originate out of Society .. 311
3. No Moral Sentiments originate out of Society 313
Sect. Page
4. The Conscious and Physical Process of Hope 318
5. Conscious and Physical Process of Fear 321
6. Pleasure and Pain differ in Kind 323

Sect. CHAPTER IV.

1. Absence of Sensation makes Ideas Vivid 325
2. Loss of Memory occasions inconsistency in Dreams 328
3. Dreams rise from Nervous Impulses .. 332

CHAPTER V.

Perception by Motion, contrasted with other Theories 336

EXAMINATION OF THE DOCTRINE OF A CEREBRAL MIND.

Sect. CHAPTER I.

1. The Doctrine of Vibrations indicates Materialism 346
2. Sensations by the Brain physically inconceivable 348
3. The Brain is not employed in complex Sensations, or Ideas 352
4. The Nerves form Synchronous distinct Impulses 353
5 Association is by Interest, not by Vibration 356
6. Brain cannot operate as Mind 357
7. Nerves support the spherule Hypothesis 358

CHAPTER II.

Of the opposition of the Spherule and the Vibratory Hypothesis 359

Sect. CHAPTER III.

1. Pressure on the Brain does not give, but takes away Consciousness 361
2. The Nerves unite at a central Cavity in the Brain 363
3. The Disposition of the Nerves favour the Hypothesis 364
4. The Seat of Percipience is where the Nerves unite 365
5. Hypothesis of an Elementary Body 366
6. An Elementary Body why requisite 367
7. The Pineal Gland 369

CHAPTER IV.

Final Retrospect and Conclusion 371

A

DISCUSSION.

OF THE EXISTENCE, PROPERTIES, AND PROCESSES, OF THE MIND.

CHAPTER I.

OF THE CONCEIVABLE EXISTENCE, AND NATURE, OF THE MIND.

SECT. I. INTRODUCTORY SPECULATION.

It has been the opprobrium of the study of Mind, and a great cause of its neglect, that no discoveries relating to its *Existence* are made therein: and one reason which has operated to prevent progress appears so evident, that whilst we permit it to exist, it may be no less than impossible to penetrate our ignorance.

It has indeed been said, that in the Theories of Perception now extant, Men have laboured under an error; in that, while they have entertained a deep rooted belief of the immateriality of the Soul; they have, at the same time, been "influenced by some "general maxims of philosophizing, borrowed from Physics."—The error however exists, *only*, if the attribute *Non-extension* shall ever be proved a joint attribute of Immateriality.

That inconsistency appears, in every attempt to treat the affections of a *Non-extended* Substance, *(if any such there is,)* as bearing any conceivable analogy to those of an *extended* one, is evident: but, while the general charge of inconsistency is as true, as it is general, this truth should awaken us to the question, *whether* the error *really* consists in speaking agreeably to the irresistible dictates of Feeling, in opposition to nothing but a *chimerical Notion*; or, in adopting *that Notion*, which itself *violates rationality*.—I mean the supposed mental attribute *Non-extension?*

It has been well said, that a House divided against itself, cannot stand; yet, whoever attempts to shew, that the Mind exists, distinct from the Body, has not only to contend in a physical dispute, with those who *confound* the two; but, if he keep within the pale of rationality, he must fight with a *Chimera* created by a party of his own Sect.

But, it must ever be vain to attempt to reason beyond the range of Conception. We are constrained to believe that the human Mind, if it is any *Substance*, is continually operating upon, and suffering the Operation of, the Body; but, we can have no Conception of *Action* without *Motion of Substance;* therefore we are under necessity to infer, that Body and Mind reciprocate in some way, like two physical Bodies.

In reasoning thus, (whether we conjecture right, or the contrary,) we are, at least, consistent with possibility in Conception; and if we outstep this boundary, all is darkness.

Supposing the Mind a substantial Thing, existing distinct from the Body, if it be *non-extended*, it is beyond dispute we do not *know*, and perhaps *cannot know* it to be so. The assumption, then, of this property is mere *Hypothesis*, which forbids inquiry; but, if the Mind has *Extension*, though we do not know it, yet, we may come to know it; and, the present supposition of it is, at least, as good as a supposition of the contrary, with this grand advantage, that we may speculate upon the one, whilst utter silence is imposed by the other Hypothesis.

It is agreed, that all we know of the Substance of either Matter, or Mind, is merely *relative*. The one has apparent properties, which our physical experience demands us to believe, is *incompatible* with some apparent properties displayed by the other. We therefore rationally conclude, that Substance of Matter is different from the Substance of Mind, without being able to afford ourselves even a *guess*, as to *what* is the *Substance* of *either*.——But our physical experience (just now appealed to) demands, that to enable two *Substances* to re-act upon each other, *both* must have the *common* property of *Extension*; and the authority for mental *Immaterialism*, and for mental *Extension*, is thus one and the *same*, whereby these two properties are equally upheld, and joined; and this junction I am led to adopt, because the pretensions of these properties are perfectly *equal*: both of the highest authority; and, what is more, they do not, *after examination*, appear inconsistent.

In this case it is favourable to remark, that it appears to have been the almost unanimous opinion of Philosophers in all ages, down to that of *Des Cartes*, that the human Mind is extended; whilst it is undeniable, that the contrary supposition rests upon *no positive* Evidence whatever.——But it is still a more weighty consideration (so far as authority may weigh) that such men as *Price*, *Clarke*, *Newton*, and *Locke*, were unable to conceive the Mind without proper *physical connexion with the Body*.——I shall finish this remark by adding, that those who now treat the Subject according to the strict rule of Philosophizing are obliged to admit, *at least*, an "*intimate connexion*," between Mind and Body which concession destroys one of the acknowledged *essential qualities* of *Non-extension*, namely, that the *Mind exists no where*;—a dogma, in giving up which, a Man no longer remains a *consistent* Non-extensionist.——

Here I conjecture, by the way, that though those illustrious Men assigned *Extension indefinitely* to the Mind, they would perhaps have questioned a *definite Shape* as much, as will any Man of the present day. Such is the Subject that Men are afraid to look their own Conceptions in the face; but yet, *finite* Extension *must have Figure*. Thus are Men kept from search after an extended Mind, though they must now begin to suspect, that *Body* is as *attenuate* as Mind can be.

After all that has been advanced to the World, upon this hitherto unprofitable Subject, I take the merits of the case to be, that

Consciousness, *Motivity*, and *Permanent Identity*, (which last is necessary to enjoy the rewards of a future State,) all these, on various grounds, forbid us to admit that our Minds are made of the same sort of *Substance* with our Bodies; which last are held to be composed of particles insensible, and, *in themselves*, inert; also, which are continually going from us, and are replaced by foreign parts; insomuch that the Body I wore at twenty years of age, may actually form parts of many different human Bodies by the time I shall be sixty; and I may then die possessed of a Body, (including *Brain*) that, some years back, made parts of the Bodies, and Brains, of other men.

The confusion of personal Identity that must, *physically*, be inferred from such facts, has not escaped Materialists, who found themselves thereby driven to the supposition, that Mind is but a *Mode*, or, that Consciousness is the *mere result of Organization*; and does not *inhere* any *Substance*.

Contrary to this, I must suppose the Mind to *inhere* a *Substance*; but being in all cases limited by my *Conception*, I know not by what reasonable authority I am called upon to believe that, concerning which I can have no thought whatever; that is, a Substance *non-extended*, moving, and being moved by, a Substance that moves, *only*, by reason that it is extended.

All that I can possibly mean, or perhaps *wish*, by an *immaterial Substance*, is an *immutable* one; which shall unchangeably remain, in the Body, and elsewhere, safe from confusion of Identity. I am not speculating in the vain view to throw any light upon the *Substance* of the Mind; but only am led, along with the results of practical observations, to state, briefly, the speculative probability of its distinct *Existence* and *Extension*.

Here the force of prejudice needs no comment; but I may notice, what I think a signal instance in Bishop *Berkeley*, whose *arguments*, at every turn, demonstrate the Extension of the Mind; and yet, (having set-out in the Creed of Non-extension) he could easier, in conception, anihilate the external World, than chuse the *alternative*, that the *Mind itself is Extended.*

With the *Materialist*, (whose Hypothesis I more radically oppose,) I shall at least have no such *chimera* to combat, as that of *Non-extension.*—We shall encounter on fair physical ground, the only *substantial* ground that human Nature can touch upon; and I ought to affect him, if I can disprove a *cerebral* Mind.——He, too, ought to rejoice, if a Mind distinct from Brain be physically indicated, because he knows, that a *Cerebral* Mind, continually changing, is no Mind at all; and, therefore, if he be not a Christian, he moves on, every day, in the dismal approach to expected anihilation.

SECT. II. MATTER IS DEFINED, BUT WAS NEVER DETECTED.

[illegible] Mind, as a Thing existing, in the present state of our [illegible] I suppose we are to endeavour to conceive a *Substance*, [illegible] and this Substance must not be liable to ordinary [illegible] the Body, which would endanger our *Identity.*—Far- [illegible] a living, varying Energy, which Body never displays to us; but yet, it *must* be *extended*, otherwise it could not reciprocate with the Body.——Now all this seems very conceivable.

I can without any violence conceive, in a man's *Brain*, a portion of Space filled with Mind, not convertible with the Substance of the Body. I say, I have only to conceive it an *extended Thing* fixed there, and then, I know as much of it *(as a Substance)* as I do of the Substance of the Body.——And if there is such a Thing as *one* extended *Substance*, unknown except by certain Properties; I do not see, why there may not be another Extended Substance, unknown except by other certain Properties.—I therefore think, there may be *two* extended Substances in Existence, as well as one; and, as to which of these should be the *grosser*, modern experience seems to have rendered the question rather a vulgar dispute.

Similar Qualities, I apprehend, make Similar Substances; and it is not necessary that *all* the qualities of a Substance be unlike, to make it *another* Substance, for I suppose, if a Reality has *one quality* not found in another Reality, it is a different Substance from that other.—Hence the *common quality Extension*, and common Modes of Operation, will not make Mind and Body *one Substance*, if it be found, that the former has a single *essential quality* not found in the latter.

It appears neither necessary, nor perhaps possible, that the Substance of the Mind should be more *attenuate* than that of the Body. It seems necessary only, that the *Size* of an individual Mind, and some unknown other inherent Properties, give it *Susceptibility* and *varying Energy*; and, also, prevent an incorporation with Body, thus preserving it impenetrable though flexible; and not to be exploded or solved, unless by particular decree.

Now, it is very fortunate, that in our present inquiry, concerning either Mind or Body, we have *nothing at all to do with Matter*; and it would surely be unwise to drag it in, for no other purpose than to impede, embarrass, and weigh down our Conceptions.

Matter is a defined thing, (and fixed,) *in Conception*, as a real Being, *extended*, *solid*, and *inert*. Whatever has *all* these Properties, I presume, is *Matter*; and whatever has *not all* these, is *not Matter*:— And thus, Matter is as perfect a Thing, *in Conception*, as a Circle, a Triangle, or a plain Surface, though *neither* of these latter, any more than Matter itself, was ever *known* to exist in Reality.—I will not offend by saying that Matter *does not* exist; it is quite sufficient that no man ever had any dealing with it, and that *Body* is found to be a very different Thing; though still, the Substance of Body (judging from its evident Properties) is not the Substance of Mind.—

Defined Matter, if it exist, must exist in separate parts, which are never known to be in contact: That thing, therefore, which *divides* these parts, *cannot* be *Matter*, yet it is extended, and holds together, whilst it keeps asunder, the Particles of Body.—It is this *extended immaterial Agent* which excites all our Sensations, in which process *Matter* never yet came into Sensual Contact.——Thus, if we were to agree to deprive the *human* Mind of *Extension*, we cannot deny the Extension of an Agent which is *not material* or *Solid*: And, as that Agent can always be appealed to, in the way of Analogy, I cannot see why we should deny our Minds a Similar Property, when by admitting it, we admit *no* new abstract belief, of a Thing with immaterial Extension, but only remove an obstacle to inquiry otherwise insurmountable.—

Agreeably with this we find, that the persuasion of an extended immaterial Mind has been held by numbers, who were also men of profound erudition, their only doubt being, as to the *manner* of its Extension: and many of these, were men whose names stand so high for both Science and probity, that we must think they have every claim to influence the question, so far as Opinion may have weight. It is not, however, upon names, but upon the following views of the Subject, that I am here to ground expectation.

SECT. III. BODY AND MATTER ARE DIFFERENT THINGS.

Dr. Priestley, who doubtless was an acute Philosopher, and the most zealous of Materialists, concurred with his Opponents, the *high* Immaterialists, many of whom abound in learning and wisdom, in one point, namely, that the human *Mind, if immaterial, cannot be extended:* Yet was Dr. Priestley, at the same time, the professed advocate of the doctrine, that *extended Body* is *wholly unsolid*, or, in other words, *immaterial;* and those *high* Immaterialists, themselves, must at least have agreed *(as natural Philosophers)* that *Extended* Body is, in *great part, immaterial.*———What is a plain man to understand from doctrines so apparently irreconcileable?

I have already observed, that *Matter* is a *Thing defined*, as is a *Triangle*, *Circle*, or *Square*, (whether any such really exist or no) therefore Dr. Priestley has neither proved, nor attempted to prove, *in fact*, (though his *terms* have professed to do so) that *Matter* is different from what we thought it.——He has, *in fact*, done a very different office, that is, has argued (as other eminent men had done before him) that *Body* is not what we thought it.—But, (by what I must think an unhappy misuse of a term) he has called *Body*, which every one sees and feels, by the name of *Matter*, which no one ever saw or felt.

Upon this it is necessary to remark here, that the error is not merely in the preference of a wrong term, but of much greater consequence.——Body was previously admitted, even by the advocates of Solidity, to consist of *two Substances*, that is to say, of *defined Matter*, and of *Something else*; therefore, however it may have been overlooked, it certainly is not proper to use the terms *Body* and *Matter* as *synonimous*; and it must be productive of confusion in reasoning, to use *any* term so, as to denote a compound of *two Substances*, by the name of *one* of its *component* Substances.—I therefore apprehend, that so long as *Matter* exists in our discussions, it must, as a fixed defined Thing, be carefully distinguished from *Body*, of whose compound texture, (if compound) nobody pretends to assign the Essence.

So prodigiously great is the quantity of *interstice* in *Body*, that the best advocates of *Matter* have acknowledged the possibility, that the *whole* quantity of *Solid Matter* in the Universe might not make a handful—and the best informed are now agreed, that we do not come in contact with *Matter*, therefore our Sensations, themselves, are inflicted by the *extended immaterial* parts of *Bodies.*———Now, it is not the Existence of *Matter* that I here contend against; but against the inconsistency of *Non-extensionists*, who can deny the Extension of the Mind *only* as a *particular case*, of a *general proposition*, that *no immaterial Agent can be extended.*—But as it is on all hands acknowledged, that the whole Universe is, in great part, filled with an *immaterial Extended* Agent; (and the general proposition being thus disproved,) I ask, upon *what* ground can the *particular case* be upheld?

SECT. IV. THE MIND DEPENDS UPON THE BODY.

It is generally agreed, that the Mind is indebted to the *physical* Organs which belong to it, for all the *Knowledge* it possesses; and, though the sentient Principle may have existed from earliest Creation, we have no ground to suppose, that it ever moved *consciously*, until the Body moved it.

If the Mind did, *originally*, require a *Condition* to enable it to operate, we may suppose, that its Action depends upon the Existence of the Condition annexed; and, that whenever the Condition shall fail, the Action of the Mind must be included.

We know, that after the *physical* Condition has been annexed, and the Mind has operated consequent thereunto, there happens a regular, and irregular Succession of failures of the *Operation* of this

Condition; and every impartial investigation must assure us, that during sound Sleep the Mind is wholly ignorant, and at rest.

I am obliged to confess, this reduces the sublime Spirit of Man, to a Thing nearly answering Mr. Locke's definition of a watch: being, "An Organisation" (though perhaps not of parts) "to a certain end, "which, when a sufficient force is added to it, it is capable to attain: and this force, coming sensibly from without, is often away "when the organ is in order, and well fitted to receive it."

Such a definition, applied to the human Mind, may appear very degrading; but, if facts support it, we must yield conviction; and, truly, we know not whether it degrades us at all.

With proper deference to the judgment of some who contend, that the Mind is always active, I must suppose them liable to a bias, in the wish that it did evince this sort of independence; but appearances, I fear, leave little room for doubt.

I shall not, here, introduce any of the usual arguments on the Subject, except to ask, what sort of Operation can be supposed to go on in the Mind of a Man, who has lain under water until the vital appearances have some time ceased? and, who is yet a much longer time before he affords the least sign of returned Consciousness?—If the Man cease to think, but for one minute, during this lapse, where is the odds, though he cease to think every time he sleep, *lacking* the "sufficient force?"

Not only is *Sensation* requisite, to set the Mind *first* in Motion; but it takes years of Existence, before Sensation becomes that "sufficient force," which enables the Mind to perform its functions tolerably. Now, I imagine, no one who holds Mind to be a distinct *Sub* *stance*, will suppose that it grows with the Body.—They must, of course, admit, that however originally perfect, it nevertheless depends, for its *due* Action, upon the growth of the Body, and must wait its time, which is a dependance of the very same nature, only less in degree than that in question.

Whatever is the Substance of the Mind, its coalition with the Body is sufficiently humiliating; but I do not conceive it any more so, that the latter should be constructed so as to *produce, as well as to suspend,* the Action of the former; which last it certainly appears to do, every night we sleep, and, at any rate, in *some* cases of insensibility.

In both these cases, the Mind is shewn to be inferior only to the great Power which made it; and, instead of being discouraged by the limitation of a Condition, I confess myself, in this view of the thing, stimulated to adore the mercy of the Creator, for having (as I believe) made sensitive Beings capable of *rest*, which I am led to hope he has made *naturally* incapable of *solution.*

Mind being supposed *a Reality*, distinct from Body, however dependant thereon, we may conceive Bodies to vary, without limit, in other states; but, from the tendency of the present inquiry, as well as from other Evidences, it will appear, we have no ground to think that Mind can either *act*, or *feel*, in *any* State, without the condition of some *adapted organized* Body.

This, if it be found just, is a welcome view of the Subject, in as much as it bears testimony to what we have been divinely taught, in that Faith which upholds the best Hopes of Man: and, upon reflection, I receive the inference with the more decided interest, because it has arisen, solely, from the investigation, without my having *herein* had any previous view to such consequence.

Philosophers are now agreed, that our earliest intelligences are those which, by experience we know, come from *without*.—Sensation then begins, where Body ends and Mind commences; and the *region* of *Perception* (if it come to appear there is such a region) is the *exterior* of the Mind, which must be in contact with nervous *Extension*.

CHAPTER II.

OF CONSCIOUSNESS OR UNIVERSAL PERCIPIENCE;——OF OPINIONS NOW HELD ON THIS SUBJECT, OPPOSED TO THAT OF *LOCKE*;——AND, OF THE SOURCES OF OUR KNOWLEDGE.

SECT. I. CONSCIOUSNESS IS KNOWLEDGE.

WHETHER the Mind, as a *Reality*, be considered either physically simple, or compounded of like parts; or extended, or the contrary; it seems generally agreed that, *as Mind*, it is a *Sole Being*; and, as such, is the receptacle of *all* Knowledge: and this is so, independent of any dispute how far it does, or does not, *itself*, produce any sort of intelligence.

It is farther generally agreed, that the Mind suffers *alternate* times, of *Knowledge*, and of *Ignorance*.—*Knowledge*, therefore, is an *Accident*.

The Accident, Knowledge, may or may not exist; but, when it does occur, it must be induced by *some circumstance* of the Mind's Existence; and it should follow, that all varieties of Knowledge are produced by various modifications of *One General* circumstance, and that the State called Knowledge, indeterminately, requires an appropriate name, which shall embrace all its *Modes*, in some such way, as the term *Motion* embraces all the Modes in which Bodies can change.

Agreeably with this speculation we actually find, that all our Knowledge is received by a *Sole Percipient*, which is the *Being* that is alive to the different Affections properly named *Sensations*, *Remembrances*, *Judgments*, *Passions*, and all other *particular intelligences;* and the *Processes* or *Facts* by which these intelligences are received by the Percipient, are identified in the general term *Consciousness*, by which term, of course, I intend a *Percipience* of *any* sort whatever.

This view of the Subject is supported by the doctrine of *Locke;* but, though the Existence, and *Extent*, of Consciousness, has the assent of his successors also, it seems, in the present day, the much more prevalent opinion, that our General Percipient is no other than a receptacle for *Counter* Feelings; or, in other words, that Consciousness is only an *accompanying* or Second Percipience, which attends all our particular mental processes.

This last doctrine is well expressed, in that capital Work which must be generally familiar as a popular vehicle to diffuse a Knowledge of the most current Opinions, on a great variety of subjects. ——The Encyclopaedia Britannica, in the article Metaphysics, begins the head Consciousness by saying——" Sensation, Remem-" brance, Simple Apprehension and Conception, with every other ac-" tual energy or passion of the Mind, is accompanied by an inward " feeling or perception of that energy or passion, and that feeling or " perception is termed Consciousness."

Seemingly consonant to this, we have the more recent, and high authority of Professor Stewart, in his Philosophical Essays (Essay I. Chap. II.) " that it is from Consciousness, or, rather, from Reflec- " tion" (attentive Consciousness) " that we derive all our notions of " the faculties and operations of the Mind ;"—and he says—" These " mental phenomena, form the direct and appropriate subjects of " Consciousness ; and, indeed, the only direct and appropriate sub- " jects of Consciousness, in the strict acceptation of that word."

Regarding this last statement I ought to specify, that I understand such Notions are here said to be " derived from Consciousness" on the same ground that is held by the Encyclopaedist, namely, that Consciousness is thought, *to accompany*, and to *note*, all our mental phenomena, such as Sensations, Judgments, Passions, &c. which several *Modes* are therefore by Professor Stewart called " *Subjects*, and *Ob*- " *jects*, of Consciousness."——For instance, (Essay I. Chap. 1.) it is said—" The importance of attending carefully to the distinction be- " tween the phenomena, which are the *immediate Objects* of Con- " sciousness, and the concomitant notions and truths which are *sug*- " *gested* to our thoughts by these phenomena, will appear from con- " siderations to be stated in the next Chapter."—And, in various other passages of the Essays we find, the emphatical repetition of the phrase " Subjects of Consciousness."—

Agreeably with both these statements, Consciousness cannot be any other than a *Co-suffering*, or *Second* Perception of every particular Affection, of which the Mind becomes subject ; and therefore, we either have a *double* Percipience of every change, or, we must have *more than one Percipient* in the Mind.———I am not, indeed aware, that any such Constitution is directly proposed, but I take it to be the necessary amount of the modern doctrine of Consciousness. Contrary to this, however, my Constitution obliges me to think, that *Sensations, Remembrances, Judgments, Passions,* &c., are *not Objects*, but merely *Modes*, of Consciousness or Percipience; and in the following Sections I must endeavour to support this opinion.

SECT. II. KNOWLEDGE IS SINGLE.

If I speak in the usual Style of language, I shall say, I am conscious, that I see Colour at this moment.——I am conscious of the *Opinion*, that man is most distinguished above other Animals, by a capacity for Thought, and capability to communicate his Thoughts, to other individuals of his Species, through Time and Place, by means of visible Signs.——Or, I am conscious of the present *Remembrance* of any past *Sensation*, or *Reflection*.

But, in regard of the *first* of these three Propositions, it is to be observed, that my *Sensation* of *Colour*, *is* my *Consciousness* of *Colour*: the Process, herein, does not consist of *two* intelligent *Facts* in the Mind.——Any sensual Organ may perform its office without farther effect; but then, if there be no Consciousness, there will be no Sensation.

In like manner, to be conscious that we *Judge*, or *Remember*, is *simply* to judge, or remember; and when we *say*, we are conscious *that* we *see*, this makes only a *double enunciation* of a *single* Fact in the Mind, such expression being as truly an impropriety, as to say, we *feel that* we *taste.*——We might as well go on to say, we are *convinced, that* we are conscious, *that* we *see;* and then, refer this *single* Fact of Vision to *three* several Perceptions, or Percipients.

An external Object may Operate upon an Organ of Sense, so as to leave no doubt that it must have performed its Office, and yet, (owing to some *stronger Interest* in the Mind,) we may have no Consciousness from the nervous impulse.——Here, then, we have the nervous *Process existing without* its *Sensation;* but we never have a Sensation, *without* its Consciousness, nor a Consciousness of Sensation *without* the Sensation itself.

Now, in treating this question, we must not confound a *double* Perception with a *complex* one.——Many conscious Processes are very *complex*, that is, they consist of component parts; but I appeal to every man's experience, whether he was ever aware of a *double* Feeling of any one intelligence, such as the *Sensation* of *Yellow co-existing* with a Consciousness of that Sensation?——Besides this, I would also ask, *what* use there could be in learning, by a *Second* Percipience, that which (all the world confesses,) we *feel* in the *Sensation itself?*

In case, however, that any one chuse to demand proof against this *double* Percipience (rather than advance any evidence for it,) I have to observe, that I do not ground my opinion of the *Unity* of our Knowledge in Sensation, upon what we feel *during* the Sensation; because, though it feels *Single*, I will suppose it *possible* to be otherwise, without falling into our instant distinct Percipience.

We indeed know, that in recognising a definite external Object (as a Horse) we use *Sensation Memory*, and *Judgment;* and yet the

Process becomes so instantaneous, that it seems, to every one, a *simple* Fact: but, concerning this Process we learn, from *Experience*, (what the Process itself does not betray) that the *parts* may exist separately, which shews the Fact to be *not Simple.*——Thus a blind man, newly made to see, could not perceive any thing in a Horse, but a mere Sensation of *Colour;* and it requires repeated Sensations, and Memory, to enable him to perceive the *Animal*, with its *Qualities.*

Now, if, (in like manner,) a man, after experience, can discover, that he ever had either a Sensation of Colour, *without* the Consciousness of Colour, or a Consciousness of Colour *without its* Sensation, I shall then suppose a *diversity* of *Co-existent Percipiences* proved by the *separate* Existence of *either.*————But, if we never have (as certainly we never have) any such evidence against the *Unity* of Percipience, I must suppose that Sensation is *not an Object*, but only *one* of the *Modes*, of Consciousness.

The same arguments which are conclusive in regard of Sensations, must be equally good concerning *Memory*, *Passions*, and all other Feelings: and here, in naming *Passions*, it seems strange, that these, which are called our most internal Feelings, are held to be Objects of a Feeling still *more* internal.

It may not be improper here to attempt to explain, what circumstance may (possibly) give rise to the supposition of an *accompanying* or additional Percipience.——It would indeed appear, that *Attention* is the conscious Fact which most approaches to such an Idea; and I incline to think, that some authors, in various passages, seem to confound Attention with Consciousness: but the intellectual Fact itself, I rather take to be, that when, during Sensation, Remembrance, &c. we *consider* the *conscious* Process (quitting the external Object) or, when we are in a *mood* to *assure* ourselves, or *believe*, that the conscious Fact *exists*, such consideration or belief does not *accompany* or *co-exist* with, but *follows*, the Fact, and thus makes another conscious Fact; which, if true, is a very different thing from supposing the *Sensation* to *co-exist* with, and be the *Subject* of, Consciousness.

This Opinion is, at least, consonant to the language of Locke, but I offer it with deference, not intending it as correct, but only supposing, that in some such way the Mind proceeds, during Percipience.

SECT. III. FEELINGS OR IDEAS ARE *NOT OBJECTS*, BUT *MODES*, OF CONSCIOUSNESS.

So vast is the difference (regarding the constitution of the Mind) betwixt the supposition, that our different Affections are only *Modes* of Consciousness, and that of their being *Objects* of Consciousness, that the most discordant opinions must result from the opposite views taken of this question; and this appears to be the source of that difference, concerning the *Origin* of our *Knowledge*, which exists betwixt the doctrine of *Locke*, and that of some of his successors.—At the same time, however, that this appears so to me, I confess my fear, of labouring under some very gross misconception of the modern doctrine, since those enlightened Philosophers to whom it must be ascribed, have, nevertheless, justly laboured, to inform the World, that *Ideas have no objective* Existence *in* the Mind.

Indeed, from certain views of the discussion, it would seem, as though opposite *general* doctrines have flowed from concordant particular Sentiments; but this I wish to submit for better information.

When I peruse the Second Section of Chapter IV. in the "Elements of the Philosophy of the Human Mind," (illustrated by quotations from Dr. Reid, to show that our Ideas are not Things objective) I understand from it, what I formerly understood from Locke, where he says (Book II. Chap. X.)—"But our ideas being "nothing but actual perceptions in the Mind, which cease to be any "thing when there is no perception of them, this laying up of our "ideas in the repository of the Memory, signifies no more but this, "that the Mind has a power, in many cases, to revive perceptions "which it once had; with this additional perception, that it has had "them before."

It is true, Mr. Locke explains an Idea to be, "Whatsoever is "the *Object* of the understanding when a man thinks."——But, whilst this language certainly lays him open to animadversion, I consider it with that latitude, which many of his expressions require; and never suppose him to mean any thing *properly objective.*—The same construction seems, also, to have been put by his opponent, the Bishop of Worcester, who says,—"And we are told that strange "things might be done by the help of ideas, and yet, those ideas, "at last, come to be only *common Notions* of things, which we must "make use of in our Reasonings." Farther, it strikingly appears, in the very first paragraph of Mr. Locke's Essay, that he uses the term

"*Object*" in a figurative sense——"The Understanding, like the "Eye, whilst it makes us see and perceive all other things, takes "no notice of itself; and it requires art and pains to *set it at a distance*, and *make it its own Object*."—Now, whilst he implied that, by *art and pains*, this curious view of Understanding *(taken by Understanding) is practicable*, he surely used a figure, implying *Attention;* and when he (presently after) calls an Idea an *Object* of Understanding, I must suppose his words equally figurative.

Instead of conceiving *Ideas* (even of sensible Objects) to be "*Images*," in the Mind, (which he is supposed to have done) we find Mr. Locke positively asserting, that it is nothing more but "some *motion* which *produces* these ideas which we have of them in us."—— We are here to observe, that he does not even suppose *Motion* to be *an Idea*, for then it would be Something *objective*. He says only, that "motion *produces* these ideas;"—and that they "cease "to be any thing when we have no perception of them."—

After this view of Locke's Sentiments, I am confessedly fearful of labouring, still, under some misconception, when I find, from the Section of Professor Stewart's Work, already quoted, that, "It is to Dr. "Reid we owe the important remark, that all these notions" (Images, Phantasms, &c.) "are wholly hypothetical:" and to find, farther, that "according to his (Dr. Reid's) Principles therefore, we have no ground "for supposing, that, in any operation of the Mind, there exists in "it an Object distinct from the Mind itself; and all the common ex"pressions which involve such a Supposition, are to be considered as "unmeaning circumlocutions, which serve only to disguise from us "the real history of the intellectual phenomena."

Now, whilst I wholly agree with this "Principle," I am only surprised to find it *exclusively Dr. Reid's*, since it appears to me to have been the Principle of Locke, before him, as expressed in the passage already quoted, and in another to be quoted, though various expressions justify the view which Professor Stewart takes of his Writings.

Here I beg under correction to remark, with regard to what the last quotation has expressed, in condemnation of *objective* Ideas, that it is the very language I would use to condemn the supposition of *Objects of Consciousness;* for, to consider Ideas *non*-objective, and to make *Sensations, Remembrances, Passions,* &c. (which are *nothing but Ideas*) the "*Objects*" of Percipience, is really more than I am able to comprehend, at present.——

But, in case it may be thought that some mistake, or some subtlety, exists herein; or, that *Non*-objective Ideas may perhaps consist with Objects of Consciousness; I will here examine the case more rigidly.———First, I take it for granted, that Professor Stewart, in justly teaching the *non*-existence of *General Ideas*, must equally deny *General Consciousness;* therefore, if the office of Consciousness, is that of noting our intellectual phenomena, every case of Consciousness must be, a noting of *some particular* Fact.———For instance, if the Object be to note either the process *Sensation*, or that of *Memory*, it must be *some one instance* of Sensation, or of Memory:—But any instance either of *Sensation*, or of *Memory of Sensation*, is neither more, nor less, than *an Idea*, and that, too, of the grossest kind; and at this rate, an Idea (which Professor Stewart denies to be objective in the Mind); is, nevertheless, an

Object of Consciousness.——This is, certainly, the best view I can take of it, and I am not aware how the subject can possibly be placed in any point of view, so as to make the doctrine of *non-objective Ideas*, consist with *objective Sensations*, and *Remembrances*.

Mr. Locke's opinion (that *Ideas* are *Modes*, and not Objects, of Consciousness) may be gathered from the whole of *his* Chap. I. Book II.; but the following single passage is conclusive.——"If they say, "that the man thinks always, but is not always conscious of it, they "may as well say his Body is extended, without having parts; for "it is altogether as intelligible to say, that a body is extended without "parts, as that any thing thinks, without being conscious of it, or "perceiving that it does so. They who talk in this way may, with as "much reason, if it be necessary to their hypothesis, say, that a man "is always hungry, but that he does not always feel it; whereas hun"ger *consists* in that very Sensation, as *thinking consists in being con"scious that one thinks.*"

If Mr. Locke had continued writing until now, I think, he could not have more clearly expressed his conviction, that *Ideas* are "*parts*," or Accidents, of Consciousness, and not *Objects* of it.

Now, whether this doctrine is not more Simple, more true, and even more consonant to the doctrine of *non-objective* Ideas, than that of a *double* or *accompanying* Percipience, I leave to all those who are competent to judge.

SECT. IV. REFLECTION IS DIRECT OBSERVATION; AND BOTH EXPRESS ONLY ATTENTION TO SINGLE PERCIPIENCE.

Consciousness is not of the past, any more than of the future.——We *never review occurrences themselves*, therefore we *never reflect*, in the physical import of that term.

They are not either the *Scenes*, the *Sensations*, or the *Passions* of *last War*, or *last Week*, that we reflect upon; it is only the *present Remembrance* of any of these, that we can *feel*, and this Feeling is *direct*, or rather *immediate*.——Accordingly, we cannot err in our Consciousness, in Remembrance; but it is notorious, that a *Remembrance* may *differ*, less or more, from its *Original*; and every time we mistake either the face, or person, of a stranger, for that of an intimate, is a familiar proof of such deviation from truth in Remembrance.——It is every way undeniable, that Reflection (even when extended to its widest import,) goes not back, therefore any distinction supposed to exist betwixt what is called mental Reflection, and Observation, is not essential, nor do these, in fact, differ much in particularity.

This remark must hold, equally, of Reflection in its strict philosophical import, for that means only *attentive Consciousness*, and Consciousness, it is granted, never goes back.——

Now, considering the prevalent use of the terms *Reflection* and *reflex Acts* of the Mind (as they are called,) it becomes of consequence to remark, that, in point of *Fact*, *Reflection* is *no other* than *Observation*; whilst it is equally to be considered, that *Perception* is but a

Perception has a specific identity with Consciousness, in being one of its *Modes*.——

If I shall be told, that the enlightened author advanced this remark with a very different view, from that of proving such identities, I take it to be the more favourable, that his particular discrimination has dictated language so corroborative of my argument.

But, what is farther favourable, this Author is not without various expressions which at least *appear* to imply the *specific* identity of *Sensation itself* with *Consciousness.*——In both his Capital Works it is, in various ways, expressed (as in Essay I. Chap. II.) that the Mind is, "*in the first instance, awakened to the exercise of Conscious-"ness by impressions* from without." But if *Sensation* is an *Object* of Consciousness, it must happen, that *impressions* from *without* must *first* awaken *Sensation*, and then leave this *Sensation* to become the "*Object* of Consciousness;" contrary to which, Professor Stewart's position (which makes the *impressions* first awaken Consciousness) appears, so far, to make Consciousness stand for Sensation; which contradicts the doctrine of *double* Percipience.

In case of any mis-conception herein, I think the following passage would clear up the mistake.——In the Philosophical Essays (Essay I. Chap. II.) it is said, "The moment that, in consequence of such an "impression, a Sensation is excited, we learn two facts at once."—— Now, here it appears, that an *impression* awakens a *Sensation*, whilst in the former passage it appeared, that an *impression* from without *first* awakens *Consciousness;* from both which I think it necessary to construe, that Sensation is meant to stand for a *Mode* of Consciousness.——But if this wanted any farther confirmation, it may be had from the continuation of the Sentence, which runs thus: "The moment that, in consequence of such an impression, a Sensation is excited, we learn two facts at once; the existence of the Sensation, and our own existence as sentient Beings; in other words, the very first exercise of my Consciousness necessarily implies a belief," &c.——Here, again, *Sensation* appears to be the *very* first *exercise* (not Object) of Consciousness; and perhaps various other passages might be found to imply the like.

On the other hand it must be confessed, that the expressions "Sensation *and* Consciousness;"—"Memory *and* Consciousness;"—and other such, sufficiently countenance the *general* doctrine, of a Consciousness that has distinct Objects.

Now, if there were no positive argument to be brought against this doctrine, I should suspect something unsound in it, from thus remarking, that the utmost ability and care, have not enabled its best advocates to express themselves always upon it with perspicuity; and, being under the necessity to presume thus much, I cannot avoid carrying the consideration a little farther.

Perhaps few circumstances could more tend to indicate the *Non-existence* of a *Second Percipient*, than the use of language which seems to involve the Supposition of a *Third*.——In the Philosophical Essays (Essay I. Chap. I.) it is said, "The belief which accompanies Consciousness, as to the present existence of its appropriate phenomena, has been considered as much less obnoxious to cavil, &c. &c."——Now, from this it appears, that whilst *Sensations*, *Remembrances*, *Passions*, &c. are the appropriate *Objects* of Consciousness, we have (*besides Consciousness*) a *belief* which *accompanies it*.

This matter may, perhaps, be more striking in an example.——— Suppose a man cut a blood vessel: he may then have sensual *Pain*, and *Fear* that his hurt will prove fatal; both which Affections are supposed to be *now Subjects* of an *accompanying Percipience*, called Consciousness; but this is not all, for the man requires *also*, the "*belief* which *accompanies Consciousness*, as to the present existence" of his Pain and Fear.

No one can here suppose me presuming at any thing so unfit, or so comparatively trifling on the present occasion, as an attempt at verbal criticism; but I certainly intend here to place in that conspicuous view which is thus afforded me, the *illusive* nature of that supposed *Second Percipience*, which, when it is grasped at in one place, starts up in another still beyond us; and which thus escapes, as readily, the strong arm, as the weak.—

Reasoning simply from what I feel, it appears to me, that to talk of *a belief* which *accompanies Consciousness*, or, to attempt to shew, that we have any such *belief*, must be somewhat like an attempt to afford a definition of any simple Conscious Fact itself.———When I vividly suffer Colour, or Sound, it is at least as superfluous, or unmeaning, in me, to *assure* myself that I do so feel, as to set about explaining to myself *what* it is that I do feel.———Here, however, we are not to comprehend, among Conscious Facts, *any faint Imagination*, which balances our belief as to whether we are, or are not, Conscious: for in this case the question is not whether we *believe Consciousness*, but, whether, or no, we *are Conscious*.

From this last view of the thing I would willingly suppose, that when Consciousness has been said to *accompany* our mental Processes, no more was meant than, that it *quickly followed* the Process; which, if so, would at least, be a loose way of expressing the fact. But the advocates of a distinct Consciousness, do not leave any possible opening to suppose, that our belief, assurance, or conviction, may *instantaneously follow*, rather than *accompany*, a Process.——— The expressions, Sensation *and* Consciousness; and, Memory *and* Consciousness; directly imply *a diversity* of *Percipients;* but this is still more critically implied, by calling our several mental Processes, the Subjects of Consciousness, since whatever is *Subject* cannot, *as such*, either precede, or follow, but must *distinctly co-exist with*, that Thing to which it is subject.—In short, from a variety of instances, which I have no wish here to multiply, I think I can scarce be mistaken in ascribing to the Philosophy here opposed, the doctrine of *double Percipience.*—And I am, at the same time, reduced to construe, that both the *Unity*, and *diversity*, of Percipience, are alternately implied, in a variety of passages, to be found in the best authors; upon which it may be enough to say, that both cannot be true; and these implied contradictions make vastly against the doctrine of those authors in which they are found, though they are not the strongest evidences that appear against it.—

I am perfectly sensible, with how much diffidence, and deference, it becomes me to state these remarks; but my darkness must be my apology. I feel an imperious desire for light in this case, and question, but to learn.

SECT. V. KNOWLEDGE IS OCCASIONED BY *MOTION*, BUT, HAS *TWO SOURCES*.

The foregoing Sections, I trust, have established, that we have only *Single Percipience* of any Knowledge; and this establishes that part of the doctrine of Locke, that *Sensations*, *Remembrances*, *Judgments*, *Passions*, and all other *particular Affections*, are, properly speaking, *cases of Consciousness*; but I am far from imagining, that such part of his doctrine properly leads to those consequences which *some* have deduced from it.

The position maintained by Professor Stewart is not the less secure, " That those ideas which Mr. Locke calls ideas of reflection, " (or, in other words, the notions which we form of the Subjects " of our own Consciousness) are not suggested to the Mind, immediately, by the Sensations arising from the use of our organs of " perception, is granted on all hands;"——and, therefore, the extreme doctrine of *Materialists*, appears to me as far from being that of Locke, as it is from being the enlightened doctrine of Reid, or of Stewart.—

Here it becomes necessary for me to remark, that though *all* our Knowledge is found (contrary to the doctrine herein opposed) to consist in " *cases of Consciousness*," it does not therefore follow, that Consciousness is the *Source* of *all*, or even of *any* of our Knowledge; and all that it amounts to is, that Consciousness is as truly the *Source* of *all*, as it is the *Source* of *any* of it.——This, however, I am concerned to find, differs from the doctrine of

Professor Stewart; for, though he does not admit that Consciousness is the *Source* of *all* Knowledge, he lays it down that "*all our Know-*" *ledge of the Human Mind is derived from Consciousness.*"

I am however obliged to think, that *external Things* and a *productive quality in the Mind*, are *properly* the *Two Sources*,—and *nervous impulses* and *some Processes* of the *productive quality*, are *respective occasions*,—of *all Knowledge*: whilst *Consciousness* is *only* that which *flows from either Source*; and cannot, itself, be a Source.

Neither can *Attention*, in either of its Modes, (whether as *Observation* or as *Reflection*) be *properly*, a *Source* of any Knowledge, because it is, *consciously*, no more than the *mood most favourable* for the *productive quality* to afford its Notions, and *during which* mood they oftenest occur:—but as a *Source*, or, even, as an *immediate occasion*, we find *Reflection has no Office*; it being, at best, only the *mediate* occasion of any Notion, in such way as *Will* is the *mediate* occasion of remembrance. In proof of this, *Reflection sometimes fails*, in what it afterwards *succeeds*; and, on the other hand, the *Mind* sometimes produces its Notions *without*, or even *against*, any *voluntary Attention* on our part.

Mr. Locke has *vaguely* called *Reflection* the *Source* of *all intellectual* Knowledge; which has left room for the doctrine of *various Faculties*; to which last I object, chiefly, because they cannot be *Faculties* which *must* produce our Notions *without Will*; but *never* do so under its *immediate Power*.

It would appear, from every view that can be taken of the Subject, the most reasonable conjecture, that the proper *occasion* of *all Knowledge* is *Motion*; and, if this is so, it appears, naturally, how Knowledge may have *Two Sources*.—Upon this supposition it would follow, that the Philosophical World have to divide, as to whether *all* the impulses that occasion Knowledge are supplied by *one Source*, that is, by external Bodies; or, whether, preferably, the Accidents of Knowledge are not supplied by Motions from *two* opposite *Sources*, the first Motions coming from *Bodies*, and the consequent or intellectual *Motions originating* properly, (though necessarily) in the Mind itself, from which *inbred Motions*, corresponding *Feelings* or Notions *may* result.

To this last opinion, it must be evident, I decidedly incline; and it follows, that I suppose *Knowledge* to proceed from *Two opposite Sources*; the *primary* sort coming from *Bodies*, and the *consequent* or *elaborated* sort having its proper *impulses* (and their *Feelings*) in the *Percipient*.

CHAPTER III.

OF THE EVIDENCES, AND GROUNDS, OF HUMAN KNOWLEDGE;—AND OF THE *TENABLE* PRINCIPLES OF *LOCKE, BERKELEY,* AND *HUME*; CONTRASTED WITH DOCTRINE OF LATER PHILOSOPHERS.

SECT. I. THERE ARE *THREE* CLASSES OF EVIDENCE.

The human race, in regard to thought, may, perhaps, be divided into two classes,—the Sensual, and the Rational,—although it is true, that no man is either wholly sensual, or altogether intellectual.

He whom I call the sensual Man, is he who takes things as they come, without asking questions; but the first questions of the rational man, concerning *himself*, and other such Beings, I should think, ought to be these: *Do* we know *any* thing?—*What* do we know?—And, *How* do we know it?—

In this case, when we consider the very opposite opinions, which have been, and still are, afloat among the learned, concerning many of the most important points of Philosophical doctrine, I take it to be one of the first duties of an inquirer, to decide *impartially*, from the *best* Evidence attainable: to receive nothing upon an inferior voucher, when a superior can be had: and, to raise nothing beyond that due *credance* of either *certainty*, *probability*, or *conjecture*, which rigidly belongs to the circumstances advanced, *wholly uninfluenced by authority.*

Now, there is but *One* sort of *Evidence*, open to human cognizance, that stands above all question, and which no Sceptic can gainsay. This Evidence (vouching nothing but itself) requires no faith, because it *admits no doubt.*—It is *Consciousness*, confined strictly to its own Facts.

After Consciousness, in point of *degree*, there are, indeed, other *Evidences*, which most men, without hesitation, agree to admit as *certain*; but there have been found acute reasoners, who pertinaciously refused assent to the Existence of any thing, except conscious Facts; and who, therefore, demanded proof, not only of the *Existence* of the *external World*; but, even, of their *own Minds*, and of *every other.*———There are those also, who, without falling into the extravagance of doubting their own Existence, have, nevertheless, deeply questioned that of the World which surrounds us; and who have supported their opinions with arguments so ingenious, as to have gained the assent of many, and the consideration of all.——— Beyond both these parties, the republic of learned, who agree, *generally*, in the belief of an external World, are not, however, agreed, either as to its *proper Nature*, or, as to the *degree* of *Evidence* by which its Existence is proclaimed to us.

From this aspect of *diversity* of opinions concerning the Existence of *real Beings*, contrasted with our *unanimity* in opinion in regard to *conscious Facts*, it becomes obvious, that human *Evidences* are of *different* classes or *degrees*; and, though all of them *may* speak equally true, yet any one case of the refusal of assent to any Fact, is demonstrative, that such Fact, whatever it is, is not vouched by Evidence of *so high a degree*, as those conscious Facts which (being their own vouchers) receive universal assent.——

There appear to be *Three* distinct *classes* of Evidence, each of which may convey *certainty;* but each stands upon its own gradation.

1st. *Conscious* Facts, or *Sensations* and other *Feelings*, properly in the Mind.—These, I think, can neither be doubted, *nor proved.*——

2d. *Necessary Inferences.*———Such as, that *the Mind which feels, must exist;*—and that, *nothing can act but where it is.*——— The contraries of these are utterly inconceivable.

3d. *Extended impressions* from without, primarily *felt in the Mind;* from which Facts, (or rather from *changes* of them) we are *led to infer* the *contingent* Existence of *external extended Objects*, though the *contrary* of this is certainly conceivable.

Now, with regard to the last of these Evidences, though we are certain, that the *occasions* of the *impressions felt*, are *external* to our Minds, we cannot be equally certain, *in what* these *occasions* consist. ———They may be impulses from *extended Body*,—or, they may be impulses from *extended Mind;*—or some have contended, that they are inflicted by *mere Volition* of *unextended* Mind.———Which ever of these opinions be adopted, it is at least certain, that we are *not conscious* of the Extension *of Bodies*, neither is *their* Extension *necessarily* demanded for the possibility of our Sensations:———Our belief, therefore, of an external extended World, is certainly vouched by only a *Third* class of Evidence.

The second Class of Evidence has been generally esteemed as trust-worthy, as the first; and the doubting it has afforded, in the case of *Mr. Hume*, only a rare instance of Scepticism, which perhaps will never be very contagious.——But, the Third Class (as I have already hinted) has not commanded near the same extent of credance.——The admired Bishop *Berkeley* attacked it, with such confessed acuteness of reasoning, that, (however unstable the ground upon which he stood) it has engaged the proudest efforts of his opponents, to restore to us that Fabric, without which, indeed, it is very hard to conceive, how either *Body*, or *Mind*, can exist.

It is unnecessary, here, to go farther into this discussion, than to state, that the Bishop, adopting an erroneous inference of Mr. Locke, that our *Ideas* of *Extension*, (and of other primary qualities of Bodies,) are *resemblances* of those qualities; and thereupon reasoning, justly, that a Sensation can be resembled by nothing but a similar Sensation, in the same or in some other Mind, drew from thence the conclusion, that *all* supposed *qualities* of *Bodies* are as *merely ideal*, as *Colour* and *Sound;* and, that even *Extension* is (like the others) but *a mere Creature of Percipience.*——Thus by sweeping away *Extension itself*, nothing (as he truly observed) was left to become a subject of controversy; but, perhaps this was going rather farther than we can reasonably be expected to follow him.

SECT. II. THE MIND IS AGITATED BY *PROCESS*, THEREFORE IT IS EXTENDED.

Though the refutation of the Ideal Theory has been achieved by Dr. Reid, upon the ground of *non-resemblances*, it may, perhaps, be worth attention to remark here, that upon the scheme of Idealism, the Creator must be supposed to have *similar Sensations* to those which we, poor creatures, have; therefore, to have *Pains* and *Tortures*, and have his *Knowledge limited by Organs*, a supposition as impious, as improbable, and one which the good Bishop Berkeley never could have contemplated.

This consideration too, (whilst it would of itself refute the Ideal Theory) leads to another, which affords *another refutation;* because, though we cannot suppose the Deity limited by Organs, we know that *our* Sensual Knowledge is so limited; and this Fact is proof that our Creator does not inflict our Sensations *by* Will; but, on the contrary, *by Process.*———Now, *Extension* of the Agent is the *only mean* by which *Process* can be conceivably carried on; therefore, *something extended* is absolutely necessary to the infliction of our *Sensations.*———Thus, I think, *Organization* is *itself* a proof of the Existence of an *extended World* which serves as a medium, betwixt us and some greater Power.

It should naturally follow, that if the Deity is pleased to inflict our Sensations *by Process*, our Minds reciprocate in a *similar* way; which corroborates the proofs, elsewhere to be advanced, that our Minds operate upon Bodies by Process, and not *by Volition.*

It appears, then, that *extended Bodies*, (whether solid or unsolid) do certainly exist, of which we have the strongest assurance of the *Third* class of Evidence; but it is of the highest consequence to render manifest, that the *Quality Extension*, which is thought the most undeniable characteristic of Body, (and which is *now* generally believed to be made known to us, by *only* a *mere consequent suggestion* of the Mind, *after* Sensation,) is actually betrayed to the Mind in *primary conscious Fact;* and that, for the possibility of such Fact, the Extension of the Percipient is *a necessary* truth; which truth *might* be manifested whilst the Existence of *Body* might, at the same time, be a Fact wholly unknown.

SECT. III. THE EXISTENCE OF BODY IS *INFERRED* AFTER CHANGE OF SENSATIONS.

The only way we have of learning the Existence of Bodies, is by *resistance*, arising from *pressure*, or *contact;* from which Process it is, that we believe those Bodies to be *extended* and *solid, without us;* though, in the case of a fine impulse, we do not infer *Solidity*, because the resistance, though a known fact, is not a sensible one.

But, though the truth of this position is generally admitted, it is not yet ascertained, precisely, *how* we *originally get*, and *how we might* get, the *Notion* of *Extension;* nor is this Notion, *now*, referred by Philosophers, to the *highest* Evidence we have for it; and, as the most important consequences hang upon the truth of this question (nothing less than the *Extension*, or *Non-extension*, of the Mind) it becomes of the deepest interest to examine it.——

The account usually given of our Notion of *Externality* is, that upon suffering a sensual impulse, and being conscious that we do not occasion it, by any energy of our own, we thereupon instantly *infer* an *external Agent*.

Now this vague account requires to be qualified, for it seems generally admitted, that a single *unvaried* Sensation never could suggest the Notion of *Externality*; on the contrary, I think it will appear, that it is not until *after change* of *Sensations*, that we can *infer* the *occasion* to be *without*.

If a man were kept, so as always to view the *azure expanse* of *Sky*, and to have his Body equably compressed by some *dense fluid*, he would, doubtless, feel Sensations essentially similar to those of any person recently so placed; that is to say, *one Colour and one pressure*, each occupying the whole of its appropriate Organ; but here, he could not in the least conjecture, that these Sensations were occasioned by any thing *external*.———But, if the Colour of the Sky change, from *Blue* to *Red*; or, if the fluid change, from *dense* to *rare*, the man will become conscious of *changes*, which he will also be conscious he does not *occasion*; and he will now at least *begin* to conjecture that the *occasion* is without him; but, upon *repeated changes*, he will infer with the utmost confidence, that the seeming causes are external.—Thus, it is *not original* Sensation, of any Sense, nor yet a *company of unvaried* Sensations, that can betray *Externality*; but it is the contemplation of *change* alone that leads to such inference.—

The position here advanced, has on its side that distinguished Author of whose labours I am desirous to avail.—He not only observes, that secondary qualities *(when first apprehended by the Mind)* do not betray any external Agent; but, in an additiona. note to F, in the Philosophical Essays) he says, *generally*, "Sensa-"tion properly expresses that change *in the State of the Mind*, "which is produced by an impression upon an organ of Sense; "of which change we can conceive the mind to be conscious, with-"out any Knowledge of External Objects."———But, though this is so far sanctioned, and indeed is undeniable, it occasions in my Mind a consideration, which that enlightened Philosopher by no means admits, or in any way supposes; for I am obliged to think it perfectly evident, that the Knowledge of *Extension* does *not necessarily pre-suppose* the Notion of *Externality*: on the contrary, it appears indisputably, that we *might*, in *given* circumstances, not only *feel* extended impressions, but *might also* come to acquire Notions of *great* and *little*, and, in short, reason in the abstract, upon *Modes* of *Extension*, without the least Knowledge of any *external* Thing whatever.

This curious question I shall follow in the subsequent Sections.

SECT IV. MANY NOTIONS CALLED INSTINCTIVE ARE FALSE.

Before I enter upon the question concerning the *highest* Evidence we have for the Extension *of Bodies*, I must beg to notice a sort of Evidence by some called *instinctive Notions;* and which, as such, are by their advocates thought to deserve more credance, if possible, than the strongest deduced conclusion.

The Philosophical Essays (E. II. Ch. II.) assent to Dr. Reid, that—" our Notions concerning the primary qualities of Bodies are " connected, by an original law of our constitution, with the Sensa- " tions which they excite in our Minds:" but I do not see how this consists with the description given of Sensation, *generally*, that it " is a change in the state of the Mind, of which change we can con- " ceive the Mind to be conscious, without any knowledge of external " objects."—I therefore, (from Professor Stewart's assent so given to this position of Dr. Reid) suppose, that notwithstanding the *general* description of Sensation, he nevertheless maintains, that SOME Sensations do *necessarily* involve the Notions of the primary qualities *of Bodies*, upon the very *first* impulse.

But, whilst I acknowledge that the *Notions* in question are early and certainly impressed in our Minds, and though I receive the dictates of this Original *disposition* with gratitude, as being highly useful in the business of life, I at the same time (though with deference) deem the *Notions*, themselves, undeniable proofs, that such nominal *law* of our constitution is not to be trusted, as an *Evidence* *of Facts*, and that it never was by Providence intended to promulgate *truth*, seeing that so many of the *Notions* dictated by this law, are founded upon acknowledged *fallacies*.

The belief of the Existence of External *Bodies*, and *their* qualities, is stated, on the authority of Dr. Reid, to be *instinctive*; and though it is explained that he did not really mean instinctive, yet he thereby meant, (as is above stated) that the belief *is immediate* upon impulse.———Upon this in the first place I have to remark, that the foregoing and following Sections will shew its clearest refutation, by shewing, that Sensations (of every Sense) might be felt, and Extension itself known, (from *external* impulses,) *without* the least Knowledge of the Existence of *External Bodies*, or *their* qualities.———In this position Dr. Reid does not, indeed, carry the general assent; and my subject obliges me, here, to offer considerations why *such* Notions are neither instinctive, nor the dictate of any *law* of the Mind.

1st. Though it is true, that men acquire the rooted conviction of the external Existence of Bodies, long before they possess that permanence of Memory to register the history of the acquisition, yet this does not prove the Existence of any *law* of belief, because, if such *law* exist, it must proclaim the Existence of the external Body on the *very first impulse;* but it is past dispute, that *no invaried Sensation* could ever suggest the supposition of *Externality*.

2d. If we believe the Existence of External Bodies or their *qualities*, under any *law* of the Mind, it is impossible that any individual could doubt it, because a law must extend to the *whole* human race.———Neither Berkeley, nor Hume, ever doubted whether *Colour was Colour*; nor could they make any question whether *Bitter* was *Sweet*, because they felt these several Sensations under *a law* of the Mind; but the dissent of Berkeley alone, to the *real* Existence of Extension of Bodies, was fatal to the supposition of our believing them *under a law*: and every man finds himself above this law, who *knows to be false*, (what the mass of men *believe to be true*,) that we touch *Solid* matter, and stand *always* with our heads uppermost.

3rd. It is not very probable that Providence made *laws of the* Mind, for the purpose of imposing *gross fallacies*, for *unquestionable truths*. But, all mankind (excepting only scientific individuals) have always as *firmly*, and immediately believed, that Body consists *wholly* of *solid Matter*; and, that every man *touches* this *solid* Matter with his hands and feet, as they believe that either *Bodies*, or *themselves*, exist: and as, in taking Man to believe under *a law*, we must take the *whole race*, we shall find, that all untaught men (forming a vast majority) believe, that *Yellow lies in Gold*, and the *Sensation* of heat *in Fire*; and, are as *immediately* convinced of this, as of their own Existence.

But, why should I rate these deceptions as confined to the *ignorant mass* of mankind, since *Philosophers*, in *all ages*, have stood so firmly upon that *solid* ground which, *now*, is so strongly suspected to be *unsolid*; and since this *Solidity* (the Notion of which is said to be born of Instinct, and really is fostered by scientific men,) is still fain to skulk, obscure and undiscovered, in some of the mysterious caverns of *Extension*, deaf to all the calls of its advocates, that it come forth, and answer the foul charges which inquisitive persons have brought against it.

It must be unnecessary to go farther. Such striking proofs of the gross deceptions arising under this supposed law, ought to caution us sufficiently against building the Existence of the *World* upon *its* Evidence merely because, such Notions arise before we have experience enough to detect the ground upon which they stand.—As, therefore, our *early* or vulgar *Notion* of the Extension *of Bodies*, is no better Evidence than we have of the *total Solidity* of Bodies, and of the *actual contact* of *Matter*, (both which last are confessedly false,) we are deeply concerned to build the external World upon some *higher* ground; and I think it evident, we have such ground, if we but condescend to examine it.

SECT. V. EXTENSION IS LEARNT IN *PRIMARY* FACT, THEREFORE THE MIND IS EXTENDED.

Rejecting the early or vulgar Notion of the *Extension of Bodies*, as arising in the same way with our fallacious Notion of *Solidity*, I am now to inquire, what *higher* Evidence we have for it.

In the Philosophical Essays (conclusion of Essay II.) it is said, "It "is by no means equally certain, whether the idea of motion presup-"poses that of extension, or that of extension the idea of motion.—The "question relates to a fact of some curiosity in the natural history of "mankind; having for its object, to ascertain, with logical precision, "the occasion on which the idea of *Extension* is, in the *first* instance, "acquired."

Now, instead of logical precision, however desirable here, I must beg to offer a plain statement of the manner in which I think we *might*, in *given* circumstances, get our *first* Idea of *Extension*.

If a man were so kept, as never to see any thing but the *Blue expanse* of *sky*, he would, however, receive therefrom *two* co-eval primary *Feelings* which would be, the *Sensation* which *we* call *Blue*, and, the seeming *occupancy* of his *whole Eye*, by this *Colour*.—I say he would *feel both* these, in a way *not essentially* differing from that in which he would ever after feel them, if placed in a similar situation:——And yet, I am of opinion, that he would not only remain *ignorant* of *Externality*; but also, that such *unvaried Sensation* would *fail* to afford him any *abstract consideration*, of either *Extension*, or *Colour!*

But if, instead of the *single coloured Sky*, he were to behold the Heavens, studded with *Moon*, and *Stars* of *various tints*, he might be led to *compare*, or *contrast* the *Blue*, with the *White* and *Copper* luminaries; and, at the same time, mark a *difference* betwixt the *lesser* and *greater extents* of *Colour:* and thus, by the presence of *several Colours*, and *several Extensions*, (giving rise to *comparison*) the man would be enabled to conceive *Colour* and *Extension*, as *attributes by themselves*, and (as such) to reason upon them, though he would find them not discerptible, even in thought.—

Farther, as this experiment might be made, without any sensible *Motion* among the heavenly Bodies, it becomes obvious that we *might* receive not only *primary Feelings* from Extension, but be enabled to treat *Extension*, as a Thing *by itself*, without having any conception of *Motion*:—and it has already been argued, that *such* a situation would *not* involve the Notion of *Externality*.

Professor Stewart (Essays, note L.) says, "I am strongly inclined, "at the same time, to think, that the Idea of Extension involves "the idea of motion; or, to express myself more explicitly, that our "first notions of extension are acquired by the effort of moving "the hands over the surfaces of bodies," &c.——But supposing this to be so (which I may doubt, since children use their Eyes, *with meaning*, earlier than they use their hands) this cannot at all decide the question which is here the object of Philosophy, if it appear that, *under any circumstances*, we *could* receive the *Feeling* (and still more if we could conceive the *abstract consideration*) of *Extension*, without involving that of *Motion;* which *capability*, I think, is put beyond question, by the above supposed case, and shall be farther illustrated by similar cases.——At the same time I here observe, that I have no need to insist upon the *abstract consideration* of Extension, since it would be quite sufficient, for my purpose, that we *feel* extended impressions, *primarily*.

To provide here against cavil, I will suppose an objection not unlikely to be proposed, (though without any foundation,) namely, how can a man have a *primary Feeling* from Extension, without its conveying to him the *consideration* of Extension *itself?*——To this I answer, that if a blind man were made to see the *azure Sky*, he would be primarily impressed to the *same extent* that he would ever be, by the same Object; but, until he see some *smaller* Object he never can, from Sight, conceive the relations of *Big* and *Little*—whilst we know, that *every Idea* we can have from Extension, (as a consideration by *itself*,) must be an Idea of some particular *relative* extent, *Big*, *Little*, or *Middle sized;* so that, without having *first* learnt, from *comparison*, the different *relations* of *Sizes*, all we could know of Extension would be, a *primary* Feeling, upon which we could not *reason* in any such way.

The result would be perfectly similar in the case of *Colour* itself, for if a man never saw any colour save *one*, though it would *primarily* impress him essentially in the same way, that it impresses other men, yet, I think, he never could find out whether it is *bright* or *dull*, for *want of other* Colours, to compare, and *distinguish* it *from*; nor could he reason upon Colours as *others* do.

Thus it appears, that a *first unvaried* Sensation *from Extension*, and one *of Colour*, *(both)* might co-exist *in* the Mind, without awakening any *complex* rationality concerning *either* of them; and, equally, *without suggesting* either the Notion of *Externality*, or that of *Motion*.

In this place I cannot avoid remarking, how decidedly Dr. Reid has excluded *Sight* from giving inlet to the Knowledge of *Extension*. ———He says, "Hardness and Softness; Roughness and Smoothness; Figure and Notion, do all of them suppose Extension.— "But," he thinks, "it must, on the other hand, be allowed, that if we "had never felt any thing hard or soft, rough or smooth, figured or "moved, we should never have had a conception of Extension."— Here the objects of *Touch alone* are selected, if we except *Motion*, which we must do, because he expresses that *Motion*, *only*, *that is* "*felt*."———But to this statement of Dr. Reid, (without reverting to my foregoing arguments,) I beg to object this simple question, Could not a Man, by use of his *Sight alone*, come to have *Ideas* of *Length* and *Breadth*—*Part* and *Whole*—*Double* and *Half*—*Greater* and *Lesser*—and a great many other *relations* of *Extension*?

To this question, I think, we may let Bishop Berkeley answer, especially as he was equally desirous with Dr. Reid, to spoil the Sight of all *borrowed* pretension, in a similar question (put by himself) to shew, how little progress could be made in *Geometry*, by a *pure Spirit*, having the use of *Sight only*.——In this instance, Berkeley yields (of necessity) concerning Colours, "that there are "*divers* of them perceived at once, and *more* of some, and *less* of "others;"—besides admitting elsewhere, that *Colours*, though *in* the Mind, "may indeed grow *greater* or *smaller*."——In short, he repeatedly insists, that "*we see Extension*,"—and his utmost stretch of objection against the capability of *Sight* (to afford us the Knowledge of dimensions) is, that it cannot apprehend *solid* Figure; and that, in regard to *Colours*, (which consist of *two dimensions*) "accu-"rately to compute their magnitudes, and assign precise determinate "proportions between things so variable and inconstant, if we sup-"pose it possible to be done, must yet be a very trifling and insig-"nificant labour."

Now, I have no wish to argue for the possibility that we could, by Sight "*accurately* compute *magnitudes*, and assign *precise* "proportions;" nor is it of any consequence, to my position, how useless this might be, if done.——The object here, is *only* to know whether *Sight alone* can admit *any* Knowledge of *Extension*, however *vague*; or, whether, from *seeing* (or from repeatedly seeing) *Trees* with *Shrubs*, *Houses* with *Hovels*, *Horses* with *Hounds*, and *Men* with *Children*, we could, in this way, acquire the Notions of *greater* and *lesser*—*Long* and *Wide*—*Equal*—*Double*—and *Half*—and other such *Modes* of *Extension* and *Proportion*?

The answer, I think, must be obvious to every one; and these *Facts*, with their *relations*, were found by Berkeley, to be so undeniably *in the Mind*, that I think it left him no alternative, but to admit the *Percipient is extended*, or to annihilate the *reality* of the *External World*—which last he was, perhaps, the more prone to do, from having grown in the scholastic belief, that the Mind is *non-extended.*

It seems to have been the conspicuous rationality of *Hume* to insist, that the Facts, if they proved the Existence of the Mind, *at all*, proved it *extended*.

The amount of the foregoing Arguments is as follows.

1st. The Mind can, (*in given* circumstances,) *feel extended* impressions, *without inferring* any *External Agent.*—

2d. A Mind which can feel extended impressions without inferring any external Agent, feels these in *primary* Conscious Fact.

3rd. A *Mind* which feels extended impressions, in *primary* Fact, *must be extended.*

The last three Propositions, it is to be observed, form a proof quite *distinct*, and *different*, from the conscious *Process itself*; which last, when duly considered, is, *of itself*, demonstrative.

The *Feeling* from an extended impression is truly *complex;*—for *first* we *see Extension;*—and, (besides this,) we have,—*a Consciousness, existing at several points at once.*———Thus, if a man see a *Salmon*, he *ought* to *see* the *head*, *middle*, and *tail*, all at the *same* *instant*, speaking with philosophical strictness.——This last Fact will be fully argued in another Chapter, which will shew, that though we cannot *attend* to or *examine* several Objects at once, yet, *Synchronous* visual *Ideas*, or *Objects*, are usually *perceived* extremely *numerous;* whilst it is only upon a vague supposition, (made by very few, that we cannot *perceive* more than one thing at once) that any one can deny our *primary Feeling* of *extended Things.*

Now, it is self evident, that a Percipient which *Feels* impulses at *two* or *more points* at once, *exists* at *two or more* points at *once.*

Decisive, and *distinct*, as the two foregoing proofs are, there is yet another, which I shall offer, merely on account of its curiosity, though the fact is well known to almost every one.

If a Stick, with its point ignited, be waved, to and fro, before the Eye, with such velocity, as that the nervous Motions excited at one extreme, shall not cease until the ignited point return opposite that extreme, it is well known we shall therefrom have *a Feeling* of *great Extension*, though the Body reflecting the light be, itself, *very small.*—Now in this way, a very *minute* Body, moving with great Velocity, might inflict Sensations as *extensive*, as those we receive from the *largest* Bodies; but it is impossible this could happen if the Percipient is not extended; for, to feel in this way, it is *necessary* that the Percipient exist *at several points at once*, seeing that Consciousness exists *where* the stick *does*, and *where* it *does not* impress.

This simple experiment furnishes a Third distinct Evidence, of the Extension of the Mind.

SECT. VI. ERROR PREVAILS, AS TO THE *NOTION* OF EXTENSION, WHICH SHEWN, PROVES THE MIND EXTENDED.

Perhaps, after the Evidences already advanced (supported by the unanimous assent of *Locke*, *Berkeley*, and *Hume*) that extended impressions are *primarily felt;* it might surprise those, who have not benefited by scholastic reasoning, to be told, that it is by no means the approved doctrine of the present day.—On the contrary, the most enlightened authors, when they now treat the *Notion* or *Idea* of *Extension*, intend thereby *only* an Idea *resulting* in the way of *inference, consequent upon* a *Sensation;* which inference is, that the pressing *Body (only)* is extended: whilst it is not at all supposed, that we *immediately feel* extended impressions.

How Philosophers so enlightened, and acute, could take opposite sides, in regard to a Fact which certainly appears demonstrable, is more than an ordinary person can presume to conjecture; but there is one consideration, which I shall presently offer, that may perhaps tend, in some degree, to explain it. Meantime, it may be possibly allowable to suppose, that some readers, if not writers, may have joined in the more modern Opinion, from conceiving, that the explosion of the doctrine of *resemblances*, *involves* that of our *primary Feeling from Extension;* in which case it may be well to observe here, that the one question has no dependence upon the other; nor could any mistake have arisen, had not Locke confounded the *Feeling*, with the *mental impression* which immediately occasions Feeling.

But, so important is the consequence which hangs upon the decision of the question in hand, that the demonstrative Evidence already offered may not prevent the necessity of contrasting some arguments used for, and against, *primary* Feeling; especially as the current of opinion seems now so strong, that *demonstration itself* may but very slowly prevail.

The Encyclopaedia Britannica (Metaph. 51.) says—" We are aware " that it has been affirmed, and affirmed with vehemence, that figures " of two dimensions are immediately perceived by the Eye; and " perceived with greater accuracy than by the Sense of touch."—— This, however, they deny, and convey their own sentiments in the words of Berkeley, thus,—" As we see distance and figure, so we " see magnitude; and we see both, in the same way that we see " shame, or anger, in the face of a man."

Now, whilst the Encyclopaedists are talking of figures of *two* dimensions, they express themselves by applying the language used by Berkeley, concerning *real* magnitude, and Figures of *trine* dimension.

In proof of this, the Bishop says, (New Theory of Vision, Prop. 43.) " I appeal to every man's experience, whether the *visible Extension* " of any Object, does not appear to him as *near* as the *colour* of that " Object, nay, whether they do not both seem to be in the very " same place."—Now, Berkeley certainly never supposed a man's *face* and his *Anger*, to be "both in the *very same place*;" but only, that the contortions of the *face suggest* the existence of the Passion, just as Vision *suggests distance*, and *solid* dimension, and *real* magnitude; all which are very different Things from *figures* of *two* dimensions, which last, he insists, we *immediately see*.

The Encyclopaedists decisively assert—"that Colour alone is im-"mediately perceivable by the Eye, and the *Notion* of figure *sug-"gested* by the colour:"—but Berkeley says—"*Is not the Extension "we see coloured*;"——and again—"*Where the Extension is, there* "surely is the *Figure*."—

The Encyclopaedists appear not to have considered that *Visible* impression on the *Eye* has nothing to do with *external magnitude*, any more than *mere* Vision has with *Solid* Figure, or with *distance*.——Neither has the Mind any thing to do with *Visible* magnitude (or, that engraved on the Retina) of any Object, the Eye being only a Standard, to which all visible Objects are brought to measure, (sinking their real magnitudes) in which standard they must always preserve their relative *superficial proportions*. Here through the Eye the visible points *of Bodies* (which, reflecting the light, agitate the *Choroides*) correspond to as many points of *mental Surface*; which may very well happen, though the *External* Body be a Mountain, and the Mind itself were not the size of the thousandth part of a grain of sand.

A direct flat Object, an hundred feet square, at some distance, will impress the Eye with only a *Square minute portion* of *impulse*.—This impulse, when conveyed to the Percipient, is *primarily felt*, and this *ultimately extended impression* (*however* small) is *as truly* *extended*, as though it were itself an hundred feet Square. The external *tangible* magnitude of the Object has nothing to do with the *percipient Fact*, and a thousand objects (of as many different *real* magnitudes) placed at proportional distances, would produce a Percipience of the very same size.—

In offering these remarks on the Sentiment of the Encyclopaedists, I acknowledge, theirs is prevalent. Their Article Metaphysics contains many points of agreement with what I esteem as Fact, and when I differ from them I am usually on the weaker side.

Two simple considerations might here save all discussion upon this very interesting subject.

Colour is acknowledged to be *only* a *Feeling in* the Mind; but, it is equally acknowledged, that *Colour is extended*—therefore, it is *extended in the Mind.*—

Again. *Memory* is acknowledged to be *in the Mind.*—Now, let any man survey a grand Temple, and then (shutting his Eyes), let him survey its *remembrance:* in doing which, answer himself, *whether* the *extended* Object is *in* his *Percipient*, or *out* of it.———If he find the Extended impression *in* his Mind, *it is felt*; but, if he only find it *suggested* to him, in the way of *inference*, *Judgment*, or *guess*, then the *Extension* is but a mere *Notion*, *like* his notion of *Solidity*, and may therefore be equally false.——I leave this question to support itself.

When Berkeley insists, that we *see Extension*, and that " *where* " the *Colour is* there is the *Figure* or *Extension*," he in other words, insists that the perceiving *Mind is Extended*; and does not in the least thereby indicate that the external cause is *not* extended.

Here I am brought to that consideration which I have already hinted, as possibly tending to prevent unanimity in opinion concerning the subject in hand.

Though Bishop Berkeley has abundantly insisted, that Extension is *felt primarily;* yet, my conception does not exactly agree with his mode of expressing this truth; and, though it is presuming, I must confess, that I do not think his statement *rigidly* just, any more than that of the Philosophers who now oppose this doctrine.

In a word, I do not believe that Visible Extension is *merely seen,* nor yet *consequently inferred;* for I think it is manifested by *complex* Evidence; therefore I am under necessity to think, that though neither side was strictly right in their own conclusion, they were both right in refusing assent to the account given of the Process by their opponents.—At the same time I must remark, that any incorrectness in the statement of Berkeley, cannot affect the truth of our *primary* feeling from Extension, nor the consequent truth of the Extension of the Mind, which hangs upon that Fact: but the doctrine of *mere inferred Extension* involves no less a consequence than to obscure the undoubted Evidence of the Extension of the Percipient.

How far I have seen this matter in a proper point of view, will depend upon arguments to be advanced in the following Sections.

SECT. VII. WE *SEE* EXTENSION.

The case now to be discussed is, that one party of Philosophers have decided, that Extension is *Seen,* whilst the other side maintain, that Extension is never more than *suggested* to the Mind, ***consequent*** upon a Sensation.

Yet, if it appear, that Extension is not manifested in either of these ways *merely*, but that, in fact, it is both *seen* and *co-evally felt*, so as to form a *complex Conscious* Fact, in the Mind, then, we have a new question, upon which the learned have yet to agree, or to differ.——Now, I here suppose, that visible Extension is both *seen and felt*, in almost every case of vision.

But before I enter upon the illustration of this, I beg it may be kept in remembrance, that I always consider the *primary* Feeling from Extension, totally distinct from, and independent of, the *consequent inference* of the Extension of the *pressing Body*; though we cannot detect the *distinction* during Sensation, and can prove the Fact *only* by shewing, that we could *feel* from extended impressions, *without* having *any Knowledge* of *any quality of Body*, as *such*.

Now, first to the Proposition that *Extension is seen*.———Some say (because we cannot *see* Extension but by *medium of Colour*,) that Colour *only* is seen, and the Notion of Extension is but *consequently suggested*.———But, to say, that we cannot see Extension, except by mean of Colour, is only a particular case, of a general Proposition, that we cannot *feel* from Extension in *any* way, *unless* an *extended* Thing be impressed upon us in *some* way; and though this is true, it does not, at all, impeach the primary Feeling had from Extension.

If there were any utility in the change, or God had pleased, that *Colours* should be manifested to us as *Sounds*, we should *hear* a *Landscape*, a *Fleet*, or an *Army*, in all their *separate* extended *parts*, as distinctly as we can now *see* them.—Or, if the *Auditory* Nerves were to divide their impulses, as the *Optics* now do, we should have *Music extended.*——Nay, I must presently devote a Section to shew, that *all* our *external Senses* do, more or *less*, betray Extension, sufficiently to prove this sort of analogy amongst them.

SECT. VIII. WE DO *NOT SEE* COLOUR.

It will, doubtless, be thought a very rash and unfounded Proposition to advance, that we do not see Colour.—Nothing seems more generally assented to than that *Colour is the Object of Sight*; and I have, in some places, spoken after others in this usage; but, I now submit whether it is not an erroneous way of speaking, and such as tends to mislead the Judgment on subjects like the present.——

I must risk the position that *we do not see Colour.*——We *see* only *external Objects*, which are *beyond* the *Eye*; that is, we learn the Existence, Figure, and locality, of the external Object by aid of the *visual Process*, in which *Process*, the immediate *occasions* of Vision are *particles* of *Light* which agitate the bottom of the Eye, whilst *Colour* is only the *Feeling* which is produced *by* that agitation.

That which we *see* is confessedly *without* the *Mind*; but, *Colour* is *within* it.——The Eye is the *Organ* of Sight, therefore we certainly cannot *see* any Thing which *exists within its* place.

This being the case, Bishop Berkeley's position (that we *see Extension*) was more correct, than any man can be who says that we *see Colour*; and, in fact, Berkeley is herein strictly correct.

I now see a Book, and it appears *as if Red*:—the *Red* seems to *adhere* to the Book, and to be a *quality of it*.—But all the world know that the *Book* is upon the *Table*, whilst the *Red* is only in my *Mind*.—Still, I certainly *see* the Book; but, as I cannot *see* in *it*, what *it does not contain*, all that I can *see* is, *its Extension*.

Here it may be proper to remark, by the way, that the *Extension we see* (strictly speaking) is that agitated upon the *Eye*; therefore, it is the Extension of an *external* Object, but not the *real Extension* of the object which we are *usually understood* to *see*.—From this it appears, that what we *see* is *no more beyond* the Eye, than it is *within* it; but is, in fact, *at* the Eye, or touching the *Choroides*.——But the Extension of the *Colour*, in the Mind, is a *third* consideration, different from both the *real* magnitude of an external object, and from *that* agitated on the *Eye*; and the *Colour* (though extended in the Mind) may differ as much in size, from that of the object agitated on the Eye, as this last does from the largest external Object.

Colour has been very improperly called a secondary *quality* of *Body*; but it is agreed, that *Bodies have no Colour*; and that Colour is no other than a Feeling which Bodies raise in us, by Process of their *only quality*, *Extension*.—Now, what we *see* must be *beyond* the *Eye*, and it is impossible we can *see*, in *Bodies*, any quality which they have *not in them*.

If there were no Eye to see a Book, it would, nevertheless, be extended: and if there were no Organ of Touch, to touch the Book, it would still be extended.———Now, we can either *see* the *Book*, or *touch* the *Book*; but we cannot *see* the *Colour* which it raises *in* our Mind, nor *touch* the *gross Feel* which arises from its pressure.

——*Colour* is a *Feeling*.——Now, nobody says that we *see a Feeling*, or, that a feeling is the *Object* or, even, the *occasion* of Sight.

The deep rooted popular prejudice, that Colour resides in the Object, has established the erroneous way of speaking; but if we remark the *irregularity* which obtains in *denominating* the Five external Senses, and their *Processes*, we may perhaps, be more sensible of the impropriety of saying that we *see Colour*.——We should think it awkward to say, that we *smell a Smell*, or *taste Taste;* and this would be so thought by an ordinary person, who could not at once explain, with precision, that we *smell* the *effluvia* of Bodies, and *taste* their *soluble particles*.

SECT. IX. VISIBLE EXTENSION IS BOTH SEEN AND *FELT*.

The account given of our *seeing Extension* does not comprehend the whole Evidence we have for it *in the Sense of Sight;* but, as Berkeley's reasoning does not support me farther, I must here endeavour to shew that the conscious process is *complex*.

It is most important, and perhaps *peculiar*, that the universal physical quality, *Extension*, is manifested to us (at any one visual impulse) by *two* different *co-existent Feelings*.———One of these is already described, as being no other than *Colour, itself;* the other is—a *Consciousness* from *co-existent conjoined impulses*—which *sort* of *Consciousness* (by *inference*) renders probable the Extension of the *pressing Body;* but, (by a *necessary* and *stronger inference*) *certifies* the *Extension* of the *Percipient*, which *so* feels.

This last mentioned *co-feeling* from extended *impulses*, is (as well as Colour) a *primary* Feeling; that is to say, we are as truly *conscious* of the *co-existence* of *several* Consciousnesses, as we are of *one* Consciousness. For instance, upon suffering *black* and *white* squares (when we look at a Chess Board) we are *as conscious* that we suffer *several Colours*, as that we suffer *one*.

Here, nevertheless, it is to be observed, that the *suffering* called *Colour*, and the Consciousness of *several co-existent* similar *sufferings*, are *two* different *sorts* of Consciousness.——If this need any illustration I may observe, that if a Chess board were to undergo a thousand successive changes (producing as many changes of Colour in our *Mind*) yet the Consciousness of the *co-existence* of the *Colours* (at any one time) will remain *unaltered*; and the *Extension* apprehended, will be the *same* through all those *changes* of *Colour*.

It is thus demonstrated, that Extension is betrayed, (at *one* visual impulse,) in *two* different ways; and this *peculiar Complexness* of the Evidence, certifies the real existence of the quality Extension, beyond any of those which have heretofore been called *Qualities of Body*.——It, at the same time, proves, that the Extension of the *Percipient* is a *more necessary* inference, than that of Body.

In this place I beg to remark, that the *progressive* "motion of "the hands over the surfaces of Bodies" is *not* the *proper*, at least *not* the *best Evidence* of Extension; though it may be true (agreeably to the opinion of Professor Stewart) that it is during such progressive Motion that we *usually* get the *Notion* of Extension.

It must be evident, with regard to such *progressive* Motion of the hands, that Extension is *never thus* betrayed by *any one impulse*, but really by a *succession* of *impulses*, which must be tacked together in *Memory* to make out the *Notion* of Extension.—Now, during this succession of impulses it is at least possibly conceivable, that *deception* might intervene, (though I don't think this is the case,) therefore I think it safe to say, that this *alternation*, of Sensation and Memory, produced by *successive impulses*, is not *so certain a test* of the Existence of Extension, as is the Consciousness from *co-existent impulses.*——*Co-existence* of *impulses* may, indeed, be recognized or *distinguished* by the Sense of *Touch*, but this only in a very *limited degree*, compared with the *distinctness*, and *certainty* of *diversity*, apprehended by Sight; and therefore, I think Sight is much the fittest Sense to demonstrate the Existence of Extension in *two* Modes.

In the Philosophical Essays (note L.) Professor Stewart has furnished the following remarks.——" It was long ago remarked by Dr. " Reid, (and indeed by other writers of a still earlier date,) that to " account for the idea of Extension by the motion of the hand, is a " paralogism, as this supposes a previous Knowledge of the existence " of our own Bodies.—Condillac does not appear to have been suf- " ficiently aware of this; nor even that most acute and profound " Philosopher, the late Mr. Smith,—In his Essay on the External " Senses, (published in his posthumous volume,) he all along supposes " the Mind in possession of the idea for the origin of which he is " attempting to account."

Now, whilst this objection is here freely admitted against the Sense of *Touch*, I have shewn on the other hand, in favour of *Vision*, that in viewing Bodies of various *shapes*, and *sizes*, (having no Sensible Motion among themselves,) we *might* receive *Ideas* of *Extension*, *without* any "previous Knowledge of the *extended* Existence of our own Bodies"—or, of *any* external Thing.

SECT. X. FEELING FROM EXTENSION *RANKS* WITH PLEASURE AND PAIN, AS A PRIMARY CONSCIOUS FACT.

Perhaps the following parallel may be more efficient, in illustrating the last position argued, than any other argument advanced; and, I confess, it is here submitted with considerable hope that (as a parallel) it will stand examination.

Sensual *Pleasure* and *Pain* are universally acknowledged to be *Sensations;* and it is an admitted truth, that one, or other, of these Sensations does *accompany* almost every *specific* Sensation, (whether *Colour*, *Sound*, *Smell*, *Taste*, or *Touch*,) which at any time excites our *attention*.——For instance, I look upon a Body called *Yellow*, and have *Pleasure with it*;—Or, I look upon one called of a dingy Green, and have *Pain with it*.——And whenever I have either of these *Colours*, in *Idea* only, I have, with it, the *Pleasure*, or *Pain*, which is attached to, and *indiscerptible* from, the *Colour*.—— I can *reason upon either* the *Colour*, or *its Pain*, separately; but I cannot so much as conceive the one without the other:—and yet, dingy *Green*, and its *Pain*, are quite different Sensations, whilst *both* are produced by *one* and the *same* impulse. In like manner certainly, I think, the *Pleasure had with Yellow*, is not *merely seen*, and yet no man will deny that this Pleasure is a *primary* Feeling in the Mind.

Precisely parallel to the case of Pleasure or Pain, is that of the primary *Feeling from co-existent* impulses had *with Colour*.—This *Feeling* (*from* Extension) is certainly, in its nature, *foreign* to *Colour*; but it *co-exists in* the Mind, *with Colour*, and *both* are *distinct* but *indiscerptible Feelings* produced by *one* external impulse.

It is here *demonstrated*, that *Colour*, *Pleasure*, and the *Feeling from co-existent* impulses, are *three co-existent primary* Feelings, *all foreign* to each other, and all arising from the *same* visual impression: but the acknowledged *co-existence* of only the *two first* mentioned of these, is a most important *demonstration*, that *more than one primary distinct Feeling* generally is produced by *one* Sensual impulse.

If any man will here say, that the *Pleasure* had with *Colour*, is *not Sensation*, then, the Feeling had from *co-existent* impulses is not Sensation, *in his opinion*; but, he cannot deny that they are, both of them alike, *primary Feelings*: and whatever rank is held in the Mind by *Sensual Pleasure* and *Pain*, that same *rank* is held by the *Feelings* we have from *co-existent impulses*; and this is equally so in Sensations of *Vision* and of *Touch*.

It is now not only evident, that *Extension* is a different *Thing* from *Solidity*; but it is here shewn to rest upon *Evidence* totally different. —If the difference in credit, between the *two Evidences* require any familiar illustration, I may observe, that the Sight and the Touch come in contact with the *outsides* of Bodies (I don't say of *Matter*) or in contact with the *outsides* of Particles of *Light* reflected by those Bodies by which *mediation* the Mind itself comes in contact with *these outsides.*—But neither the *Sight,* nor the *Touch,* can come in contact with the *insides* of Bodies, therefore we can only *guess* at their *Solidity,* as a child guesses that *something* within his Drum makes the noise.—The consequence of this *guess* concerning *Solidity* is, that, like many other guesses, it has never yet been found true.

To those who consider the matter deeply, I trust it will appear, that the precise manner in which we feel extended impressions, (whilst it secures the *Extension* of the *Percipient,*) is as efficient for the purpose of refuting the *Ideal Theory,* as it could have been, according to the view in which Dr. Hutcheson, and Dr. Reid held it; and, indeed, I think, much more efficient, because, whilst the account here offered *of the Fact,* prevents it from being confounded with mere *Colour,* it, at the same time, establishes the credit of *Extension,* upon a footing *much higher* than if it were vouched in the *same* degree *only* with *Solidity;* with which last nominal quality some Philosophers have *confounded,* and others have, at least, *classed* it.

SECT. XI. EXTENSION AND SOLIDITY ARE DIFFERENTLY *VOUCHED*.

The Philosopher to whose writings I so much look up, has justly pointed out the Error of confounding *Extension* with *Solidity* ; and has rescued Extension from being *classed* under one common denomination with it, as a " primary quality of Matter."———But if *Extension* is vouched to us by no other Evidence, than that which we have for *Solidity*, I am not aware *why* the *two* should not be *classed* under the same head.

Is there any *intermediate* Evidence, between *primary Feeling*, and *consequent inference ?* If there is any such, I believe it is not pointed out,—for in Essay II. Chap. II, it is assented with Dr. Reid, that " our Notions concerning the primary qualities of Bodies are con- " nected, by an original law of our Constitution, with the Sensa- " tions which they excite in our Minds ;" and this assent *includes Extension*, because, in the Second Section of the same Chapter it is said—" The notion of the *mathematical affections* of Matter"— " is *suggested* to us by the same Sensations which convey to us the " Knowledge of its *primary qualities*."——Now from this I understand no other, than that our *Notion* of *Extension*, and that of *Solidity* both are from the *same class* of *Evidence*, however different the qualities themselves may be.

Contrary to this (whilst I have the honour to agree, that Extension and Solidity are totally different Things,) I think, the greater certainty of the external or independent Existence of Extension is evinced, *only*, in its being betrayed to us by *higher Evidence* than that which *suggests* the *Notion* of *Solidity*: and I suppose, that the unextinguishable nature of the conception of Extension (after it is once got) arises, *farther*, from the *peculiar* nature of the *complex* Evidence; namely, *Colour* conjoined with *co-existent* Feelings from *several* impulses.

Throughout this discussion I beg it may be observed, by those who (without being intent upon the Subject,) might chance to misconceive my meaning, that nothing is farther from me than to imply that we are *Conscious of Extension of Bodies.*———We are *conscious of Colour*, but we only *see Extension.*—That is, we are *conscious* of what is *felt* in the Mind; but we *see* that which *exists out* of the Mind. ——Farther, though it is demonstrated, that we have *extended impressions in* the Mind, I do not mean that we are *conscious* of *these impressions*, any more than we are of external Extension; on the contrary, I suppose these impressions give us *Feelings*, which Feelings are our Conscious Facts.

SECT. XII. *FEELING FROM* EXTENSION, IS A DIFFERENT THING FROM *IMPRESSION* OF EXTENSION.

If any one, leaning to the *Berkeleian Theory*, here imagine, that Extension, in being betrayed by primary Fact or Sensation, is therefore upon a footing with those Feelings which have been fallaciously called *Secondary Qualities* of *Body* (such as Colour and Sound) or, that Extension is thus evinced to have *only* an *ideal* Existence, such supposition is foreign to the Fact.

Here I must repeat, by the way, that to call Colour, or Sound, which is a *Feeling in* the Mind, a Secondary *Quality* of *Body*, which is out of the Mind, has ever appeared to me a confused way of speaking, tending to the farther confusion, of calling *Extension* which is really a *Quality*, and *Colour* which is merely a *Feeling*, both by the common name of "*quality* of *Matter.*"

But, to return to the Fact.——I never confound the *Feeling* had *from* Extension, with the *mental extended impression* which *produces* it; though I do suppose this *impression* to resemble the *Quality Extension* of the *pressing Object*, in as much, as the *Object*, and the *mental impression*, are *both extended* and *Figured* in similar *superficial proportions.*———In this case, I think, the mistake of Locke lay, simply, in calling the *Feeling* a resemblance of the external quality, instead of discriminating, that we have in the Mind not only the Feeling, but, also, a *mental impression* which is the *immediate occasion* of the Feeling.

This distinction, indeed, could not have been made by either *Locke*, or *Berkeley*, unless they had become Extensionists; but here (as an Extensionist) I offer a very simple illustration of what I must suppose to be the Fact.

Suppose a piece of Wax to be Sentient, (upon Motion) and suppose a Seal acting tremulously upon it.——In this case there would be *two* Facts going on in the Wax; namely a *physical* Fact, and a *Sentient* Fact; or, an *impression* and a *complex Feeling from* that impression, *both co-existing in the Wax.*———Now, the *Feeling* in the

Wax, could not be the least like the *impression* of the Seal; but the *impression* in the Wax, would resemble the *Extension* of the *Seal*, because it would have similar *extended proportions.*———Had Locke been *wholly* an Extensionist, (which he seemed inclined to be, when he thought "it *hard* to conceive any Existence, or to have any idea "of any real Being, with a *perfect negation* of all manner of *expansion*,") he would, probably, have conceived such *mental impression*; and, therefrom, have avoided the opening he left, and its consequences.

SECT. XIII. THE MIND EXISTS, EXTENDED AND PERMANENT.

Extension and *Duration* are vouched to us by such Facts as evince *their nature*: the *first* by the *co-existence* of its *parts*; the *other* by the *impossibility* of any such *co-existence*; observing, here, that the *parts* of both are only *measureable*, but not discerptible.

It is from these Facts alone, that we have any Knowledge of such independent Existences, and I think the *necessary co-existence* of the parts of Extension, and the *necessary succession* of the parts of Duration, are (respectively) their *essential qualities.*———Now, whilst this *co*-existence, and *Succession*, are the *necessary* qualities (respectively) of *Extension* and *Duration*, I should imagine they must be, at least, *contingent qualities* of any *Mind* which can *apprehend both*; and, therefore, that human Minds exist *extended and permanent.*———Or, the conscious Facts from which we apprehend *Extension* and *Duration*, are as good Evidence, *to us*, that *we* exist *extended* and *permanent*, as that Extension and Duration, *themselves*, exist *independently*.

Whether these independent Things are *realiy* so, or the contrary, is not here the argument, but only, that *our Knowledge* of them, I think, undeniably depends upon our *previously* admitting, that our Minds partake of these qualities, and such mental qualities are the *only means* by which we could know that *Space* and *Time exist.*

SECT. XIV. WE DO NOT PERCEIVE BODIES, *THEMSELVES.*

From the foregoing Sections it possibly appears, how Berkeley's position (that we *see Extension*) may have been opposed: and why, on the other hand, his opponents may have thought that visible Extension is only *suggested* in the way of *inference.*——But the Fact of *primary* Feelings from extended impressions must become so very obvious, from the different views in which it has herein been placed, that perhaps I might apprehend being charged, by some, with misrepresenting the doctrine which I ascribe to the Philosophy opposed. I therefore deem it proper in this place, to quote such passages as seem best to illustrate that doctrine, *which also may* be the more proper, to provide against any misconstruction on my part.—

In the Philosophical Essays (Essay I. Chap. III.) we have the following passage from Dr. Hutcheson,—" Extension, figure, motion, " and rest, seem to be more properly *ideas* accompanying the Sen" sations of Sight and Touch, than the Sensations of either of those " Senses."———And, on this occasion, Professor Stewart (besides speaking of this remark, as an instance of " singular acuteness,") observes, that the fact itself is " a peculiarity which Dr. Hutcheson " had the merit of first remarking:"—and, though, it seems, Hutcheson did not perceive the importance of his discovery—" the fact is," (says Professor Stewart) " he had anticipated the very instances " which were afterward appealed to by Dr. Reid, as furnishing an " *Experimentum Crusis*, in support of his reasonings against the Ideal " Theory."

Now, I am not contending with Dr. Hutcheson for the honour of the discovery, that *Colour* and *Feeling* from *Extension*, are *distinct* Feelings; but, I do contend, that the *Feeling* from Extension, here meant, is *not merely* an *Idea*, in the sense meant by Dr. Hutcheson, namely, an *inferred notion*.—I must also submit, (by the way) that to call " Extension, Figure, &c. *Ideas*," is not what I can consider correct, and it tends to the same sort of mistake as that of calling *Ideas*, resemblances of External qualities; which oversight, of course, I do not suppose to be meant literally.

Consonant to Dr. Hutcheson's opinion, thus quoted, is Dr. Reid's new Theory of Perception; which, differing from the unanimous suffrage of Philosophers, in all ages, supposes, (in the language of Professor Stewart) that we " perceive external objects themselves;" and yet, gives the following account of the *manner* in which we do perceive them,—" that impressions upon the organs of Sense, are fol-

" lowed by Sensations, and that these Sensations are followed by a " perception of the existence, and qualities, of the Bodies by which " these impressions are made."—

Upon this I might perhaps first remark, that to perceive objects " *themselves*," and yet, that their impressions are *not felt*, but only *consequently suggested*, seems rather unaccountable.——But letting this rest, what becomes of the doctrine, that a Sensation is followed by a perception of the *Existence*, and *qualities*, of the Body which impresses it, since I have repeatedly illustrated, that, *in given circumstances*, we might have both *Sensations* and a Knowledge of *Extension*, without any Knowledge of the *qualities*, or even of the *existence*, *of Bodies*.——This consideration *(unless it can be disproved)* must for ever explode the supposition that we perceive Objects *themselves*.——

Professor Stewart has ingeniously shewn, that a Being possessed of only the Senses of *Smell* and *Hearing* " might know all that we " know of Mind at present;" and, in his illustration of this case, he observes, that if the Being gifted with only those two Senses, " felt " a variety of different Sensations, he could compare them together " in respect of the pleasure or pain they have afforded him."——To which I beg to add, that he could equally well *compare Sounds*, in respect of *grave* and *acute*, and *Smells*, as to vivid or faint; and mark their differences, distinctly from the pleasure or pain they afford him.——Besides this it must be obvious, (when noticed) that Professor Stewart has, in this imagined case, stopt far short of the possible *capability* of the Mind under a diminished number of Senses.

If the Being he has imagined, were farther gifted with the Sense of *Sight only*, and were always kept so as to view the Heavens;—and, if the heavenly Bodies were Mathematical Figures of *various Sizes*, as well as *Shapes*, this Being could as well *compare* their *Sizes*, and *Shapes*, as he could compare "the Pleasures and "Pains had from *Smell* or *Sound*.———In this way, by aid of *Sight alone*, he could acquire Notions of *Length* and *breadth*, and the relations of *greater* and *lesser*; *part* and *whole*; *double* and *half*; *equal* and *unequal*; *Circles*, *Triangles*, *Polygons*—and, in short, make some rude progress in the Knowledge of *dimension* and *proportion*;—and yet, all this time, if the Heavenly Bodies had no sensible Motion, he would remain totally *ignorant* of the *Existence* of any *External Being*.

The Arabs are said to have been led to Astronomy by lying under a Serene Sky, as their custom now is; which, in some sort, subjected them to observe the progress of the Stars, but had there been no sensible Motion among these luminaries, nor with regard to the Visible Horizon, and had the Stars been Mathematical Figures, differing greatly in Size, the Arabs, instead of Astronomy, would have taken up the consideration of Extension and Proportion only. Here it matters not how rude, or how limited, must have been their Knowledge so gained; for, if it is proved only, that *Sight immediately* affords ideas of *greater* and *less Extension*, this establishes my utmost position, as truly, as though each Arab proved a Newton.—

I therefore say, that the *Idea* of *Extension* is *not necessarily* subsequent to our Knowledge of the Qualities or Existence of Matter, upon the *very same ground* that Professor Stewart has said, that 'our Notions of Mind are *not necessarily* subsequent to our Know-

"ledge of the qualities or existence of Matter?"——and I am truly happy that this Philosopher has imagined such an ingenious case, which serves me as a precedent, and must save me from being charged, in this instance, with visionary suppositions.

SECT. XV. EXTENSION DOES NOT *NECESSARILY* COMPREHEND DISCERPTIBILITY.

In the face of the irresistible mass of Evidence already adduced I will now introduce, what has been thought the Strongest objection to the Extension of the Mind—I mean the consequent supposition of its necessary divisibility (or rather of its actual *division*) into *parts*, like any other Body.

But first (independently of any thing herein proved,) I scarce think that any mystery on this ground, can stand in opposition to the grand maxim, that *nothing can act but where it is*; or, to the rational inference deduced from this, that the Creator hath *Ubiquity*. ———But, all who assent to the Ubiquity in question must allow, that a *finite* Mind cannot touch the *Infinite* Mind in any way except *partially*; and, consequently, that a *partial* impulse becomes instantly known to the whole Omnipresent Percipient:———and, however mean we are, infinitely below comparison, we may perhaps without impiety speak in *Analogy*, that *partial* Sensual impulses, upon *our finite* extended Minds, become in some such way known to the whole human Percipient.

This Analogy, I think, is abundantly sufficient to overcome the very vague and dark conjecture which, at best, we can form, concerning the actual consequences of divisibility: and besides, divisibility and *discerptibility* are very different Things, the one not necessarily comprehending the other, so that there is no objection to the Extension of the human Mind upon this ground.

Indeed the position that a Thing extended *must* consist of *parts* actually distinct, and discerptible, is one which I could never conceive.——For, if *a single* particle of Body ever was created (I care not how *small*) it might have been *less*, or greater; therefore, *Unity* has no dependence upon *size*; and if Body really consists of parts, it must consist of *Single* parts, each of which must possess *Unity with Extension*.

In short, notwithstanding any doctrine of the divisibility of Matter, the possible Extension of the Percipient is not, I think, in the smallest degree affected by it; nor does it afford any drawback upon the positive arguments by which the Extension of the Mind has been demonstrated.

SECT. XVI. THE SENSES IN *GENERAL* BETRAY EXTENSION.

The Feeling from extended impression is, from its peculiarity, and from being so *generally* experienced, fully entitled to possess a *distinct* head, as one of the great *Modes* of Susceptibility; and, as such, I shall introduce it in the Chapter which treats on that Subject.——

Meantime, I have undertaken to argue, that all our external Senses are capable to convey the Feeling in question; and though I must expect this position to be, at first, viewed as extravagant, I have a humble opinion that such is the fact.—

It is universally agreed, that *Ideas* of Extension are conveyed by the Senses of *Sight* and *Touch*. It therefore remains for me to show only, that the Senses of *Taste*, *Smell*, and *Hearing*, do the like.

First, in respect of *Taste*.—If a man, with his Eyes shut, receive a drop of either *Gall*, or Sweetmeat, from a pin's point, and if the fluid be of such a temperature as not to betray itself by heat, or cold, or in any way except by that of *Taste*, he could certainly tell, that the Sapid impulse has the *extent* of a Sensible *Point only*.—But, if his tongue were *wholly covered* with either Gall, or Sugar, he could as readily inform us, that the *bitter*, or *sweet*, now occupies *an encreased extent*.——The different extents of Sapid impulses, when we apply a *mere particle* of any salt, or food, and when we *fill* the mouth, is so familiarly known to every one, that a child, or a blind man, knows this full as well as the adult who sees the food going to his mouth.—We are therefore certified, that Vision has no *necessary* share in discovering the extent of any Taste, and that, in many cases, heat, cold, and other Sensations properly of Touch, are not, either of them, a party in the intelligence. In short, it would be impossible for any one to impose *a small particle* of either Sugar, or Rhubarb, upon a child's tongue, and then exchange it for a *larger* gust, (however nicely managed) but it shall tell you *(if asked)* which is the *great Taste*, and which the *smaller*.

If any caviller here object, that such Feeling of Extension is vague and useless, I cordially grant this; but it makes nothing against the *Fact*, and I ask him, in turn, whether the Feeling of Extension from a Thing applied to any part of the *Body* (wanting locomotion) is not *also vague*; and perhaps not much less *vague* than in the Sense of Taste?——Let any man press a Square, a Triangle, and a Pentagon, of one or two Inches diameter *(evenly)* upon his back, or thigh, and satisfy himself; or, let another person apply (variously) the ends of one, two, and three fingers, upon his limbs, and then let him try to tell *how many* fingers press each time.

The object of Philosophy here, is only to prove the *Analogy* among the Senses, and this being done, *correctness* and *utility* are quite out of the question.

Secondly, of *Hearing*.—It is very certain (though we may not ever attend to it,) that if we hear an *acute* Noise from a very *small* object near us (as a Watch at the bed's head) the Sensation of Sound seems to occupy a *mere Point* in the Organ; but if the vibrating Body be *large*, or at some *distance*, so as that the Undulations of air *fill* the whole Organ, we find the *extent* of the *Sound enlarged*.

It is however true, that we *scarce ever attend to this*.——First, because the Feeling of Extension is herein extremely *vague*, and quite *uninteresting*; which *last* circumstance alone would always prevent our either *noticing*, or *remembering*, the Fact, as will be illustrated in treating upon the *Sense of Interest*.——Secondly, we fail to notice *Extension in Sound*, for the reason advanced in Section II., that an *unvaried* Sensation, occupying the *whole* Organ, does not awaken us to the *abstract consideration* either of *Extension*, or of *Colour*, although we actually have the primary Feeling of both these.————This last reason obviously applies, in regard to *Sounds*, because almost all Sounds arise from Vibrations of Bodies of *large* size, or from such a *distance* as that each Undulation *fills* the Organ; and it is only in *rare* instances that a *minute Sensation* of *Sound* can *distinctly co-exist with* a *wide Sensation* of Sound; whilst until this happen, (and we *compare* the two Sounds) we shall perhaps never be awakened to the *abstract consideration* of *Extension in Sounds*.

But, fortunately, we are not altogether cut off from proof of the Fact.————If a man be subject to Noises in his Ears, (as I am at this moment) he may, sometimes, be sensible of an *acute* Noise, seeming to act upon a *mere* sensible *Point* of the Organ; and, at the same time, a *grave* Noise, filling the *whole* Organ, and (like an *Areola*,) sensibly *surrounding* the seeming *Point* of *acute* Noise.————Now, the *co-existence* of *two* very *different Sounds*, (possessing such very *different extents*,) gives opportunity for *comparison*, and awakens our attention to the consideration of *their* Extensions, (*abstract* from their Sounds,) which would not otherwise arise: and though the *greater* Extension is still more vague in this Sense, than even in that of Taste, yet the *Analogy* is evident beyond all dispute, which is all that I have to make manifest.

Thirdly, the Sense of *Smelling*.—This Sense alone remains to be examined, and perhaps will scarcely furnish us the Analogy sought.————It is rarely possible to compare *two co-existent Smells*, especially in regard of their *Extension*, nor does there appear any utility to *interest* us, unless in such a rare case as to satisfy the present question.————Most clouds of effluvia, coming from *large*

Bodies, or from a *distance, fill* the Organ; and it may be very hard to confine effluvia to a part only.—But if we use a mere particle of any Substance, whose effluvia extends scarce beyond its volume, and bring the point nearly in contact with the Organ, I think we shall have Odour in a *diminished extent*: but, truly, I have not pursued the experiment, and I certainly will not cite in my own favour a possibility on the footing of a Fact, I am therefore content to consider this as doubtful, and deem the Analogies already argued, fully illustrative that our external Senses, *in general*, receive all Sensations *co-existent with a Feeling* from *Extension*, whether the same be noticed, or escape us.

Here I would remark, that our overlooking a *primary* Feeling, is sufficiently shewn to be no argument against its Existence. We need at least *comparison*, to learn the relations of *Big* and *Little*, before we can attend to the Feeling of *Extension*, whatever be the *Sense* that conveys it, so that we are prevented from the *abstract reasoning*, not for want of Feeling, but for want of *discrimination* of Feelings.——The same circumstance operates, *generally*, through life, in a thousand ways, down to the most homely.—Thus, a man makes a hearty repast, but all the time feels some *uneasiness*; which, however, his State of Mind prevents him from examining.—At length, when he has about ended, he sees an object which reminds him that he has all the while lacked and languished for, some trifling *usual additament* which would have afforded him plenitude of enjoyment. In the very same way he might primarily *feel* either *Colour*, or an *extended impression*, without having any farther rationality concerning either, or (if any one please) without knowing what is the matter with him; and it is only *after changes,* and *comparison,* that he will awaken to *discrimination.*

SECT. XVII. SENSATIONS ARE COMPLEX FEELINGS.

It has been demonstrated, in Section X., that we receive *more than one primary Feeling* from *one* sensual *impulse*: and, it may be proper here to illustrate, that Sensations, in general, are *complex Feelings,* although they have usually been considered as *simple.*

A *whole* Sensation, of whatever Sense, (unless we except that of *Smell*) consists, I think, of *Four component Sensations*; which are—*Species—Interest—Extension*—and *Figure.*

For instance in the Sense of *Touch.*—If a man touch a *Warm Iron,* he must suffer *Heat* (which is an individual of the *Species* which may be called *Gross Feel*), and must also feel *Interest* (that is *Pleasure* or *Pain*) with this *Heat*:—But, at the same time, he must *Feel* that the *Heat* is of *little* or *great extent,* and also *Feel* the *Boundary* of this Sensation.

Or, in the Sense of *Sight.*—If a man see a *Guinea,* he must suffer *Yellow,* which is an individual of the *Species* called *Colour*; but with this he will have *Interest* (pleasing or painful), and he will feel that the *Colour is extended,* as well as *where* it is *bounded.*

Now let any man examine himself, and he shall find there is not one of these conscious Facts *more* conscious than another.——When we *see* the chequers of a Chess board, I fancy no man will attempt to persuade us that we *infer*, or *guess*, that the squares *which we see* are *extended*, or *bounded*; any more than we guess that they are Black and White, or guess that white *pleases* us, whilst Black *displeases*. ——The only thing that is *inferred here*, is, that the *real* squares, *themselves*, of the Chess board, are thus extended and bounded; which we *infer*, because the *Conscious* impressions they make on us *are so*: and, though I doubt not such inference is just, yet, I have shewn (in Sect. V.,) the curious Fact, that the extended *mental* impressions and Figures, answering to the *external real* squares, might be inflicted upon the Percipient by *mere Points* of Body, moving with great velocity.

Of the four above named *Components* in a *whole Sensation*, it depends upon circumstances *which* we shall *abstractly* notice *first*, if we except *Interest*, which last it is that leads us to notice any thing.

In most visual Sensations, I think, we are apt to notice *Figure* before Colour, and last of all, Extension; though where Extension *alone* interests us, I think we note *it* without any attention to Colour, and perhaps without abstractly noticing Figure at all.—Two such instances are, when we survey the *unbounded* expanse of *Sky*, and of *Ocean*.

Here it may be observed, *generally*, that the Feeling from Extension is accompanied by that from *Figure*: but we are to observe also, that *Figure itself* is no other than a Mode of *Extension*, and must be felt in the Percipient, rigidly, *as Extension* is felt.——It therefore follows, that in Feeling from *Body*, nothing is felt but *Extension*.

I have just said that, in Vision, we frequently attend to *Figure be-*

fore Colour;——which will appear questionable on the usual supposition that *Colour* is the proper *Object* of *Sight*.—But, I have already argued, that to *see any Feeling* in the Mind is *impossible*; and that Colour is *not* the *Object* of *Sight*, but only the *Feeling* which *follows* the Process of seeing; which Fact being made evident, it remains, that we *see Extension only*.——Now, it is notorious, that in regard to all Objects possessing *Symmetry* we attend to Figure *much more* than to Colour; and, as *Figure* is but a *Mode* of *Extension*, the circumstance of attending to *visible Symmetry* is a practical consequence of the Fact already argued, that *we see Extension only*.

It will, I think, be assented, that in all Objects possessing *Symmetry*, such as Works of Architecture,—Furniture,—Animal Beauty, —and, above all, the human Figure, *Colour* is only a very *secondary* consideration.——The divine art of Sculpture affords striking proofs of this Fact; and those who are rapt in admiration of the architectural remains of Antiquity, or representations of them, perhaps seldom attend, *abstractly*, to any consideration of their Colours.

A woman of exquisite *Symmetry* is a *Venus* though she raise the Sensation of *Yellow*, or *Black*; and her form will be graven in the Memory of those who cannot recollect, by many shades, what Colour she bore: but the *blooming* tints of Circasia, or of Europe, if cast in a homely mould, will never turn the cultivated Eye from the *bronzed* proportions of Coromandel, or Malaya.

SECT. XVIII. BODY AND MIND ACT BY COMMON PROCESS, WHICH PROVES BOTH ALIKE EXTENDED.

The object of the present Section is to prove a Fact, which shall be additional proof that the Mind is extended.

Now, the *Non-extensionist* rests upon *Two general Propositions.*—First,—That an *immaterial* Agent *cannot* be extended,—Secondly,—That an *immaterial* Mind *cannot* have *any* property in *common* with *Body.*—

But the first of these Propositions is universally agreed to be *false*, since an immaterial extended Agent is acknowledged to connect the particles of *Matter* (if Matter exist) in all Bodies.——Nothing then remains, but to disprove the other Proposition, which I suppose will be done if we prove the contrary.

Now, let a man lie down betwixt two Casks, and with his feet and shoulders *repel both* at *once*, in opposite directions. Here I think it would be great perversion of language to say, that he repelled the Casks *by* an energy of his *Will.*———The truth is, he did so *when* he willed; and, *with* an energy of his *Mind;* but, nevertheless, he repelled them *by* a *Process* of *Repulsion.*

Unless we chuse to indulge a perverse conception, in this case, we shall most naturally suppose the man's *Mind* inflicted the very similar *Process* upon his Body, that his Body did upon the Casks (the Body being a mere cushion between.)—This process on the Casks is, by the bystanders, called *Repulsion;* but the man who exerted it knows better, than they, that it is so; for he not only saw the Process, as they did, but he knows that he first *premeditated*, and then *performed*, the Act; the *manner* of which he conceives, although he may be illiterate, and not understand the *term Repulsion* at all.

Whether we know any thing of Power, or, whether Bodies do really repel each other, is not here the question; but only, whether *Bodies* and *Minds operate by one sort of Process* common to both? ——Now, it is passing strange, that though the only Notion we have of Power is taken from our own *Mind* and its operations, yet we say that *Bodies alone act by Repulsion*, and that Mind, on the contrary, acts *by Will*.

If a man amuse himself by calling that an energy of his *Will*, which I call an energy of *Mind*, I have no objection. Nay, so far, if it please, I may speak with him; for this has nothing to do with the *Fact*.——Energy I take to signify Ability, and the Ability of a Mind must be exerted either *by* some *Process*, or, *by* means superior to Process:——But repulsive Acts are performed by many Minds which possess not that Thing called *Will*.——Brute Animals—Idiots—and very young infants, all of them occasionally repel external Objects; and as the advocates of *Will*, perhaps may not allow *it* to any of these, they must grant that such Beings act *by* something else than *Will*.—

We indeed say, that a House was burnt *by* an *incendiary*, or a Ship was blown up *by Gunpowder*, both which phrases are allowable in familiar discourse, and the first has really a *forensic* propriety: but both assertions are *false in Fact*, for the House was burnt *by* the action of *Fire*, and the Ship blown up, or its parts *dissipated*, *by expansion* of *Air*.—Now, with equal truth, the two *Casks* were repelled *not* *by* Will, but *by* Process, which Process *(whatever it really is)* must, I think, be supposed *Analogous* to the Process by which one Cask repels another.

Men rivetted to Opinion, or heated by contest, may still say, that a man moves a Cask *by* an energy of his *Will*, or that he blew up a Ship, or conquered the World, by a like energy; but he who is seriously in search of truth, will deliberate before he decides; and ask, whether Will is any Thing but the point at which the *Mind* is *pleased* to act. And if an Act, when performed, has all the same *seeming* consequences with an Act of an inert Body, perhaps he may agree, that the Process in both cases is *essentially* of one nature.

One thing I think appears evident, that all the Repulsions which Philosophers talk about, are thought to be such, *only*, from the suggestions of *our own Mind*, consequent to its operations.——If, therefore, *either* of the two Realities operate *otherwise* than by Repulsion, I suppose it must be *Body itself*, and that (if it differs) we have yet to learn *how* it differs from Mind in its Processes.

SECT. XIX. PHYSICAL RECIPROCITY IS DEMONSTRATED.

The following experiment, which accidentally occurred to my Imagination, appears to me no less than a *demonstration* of the *physical reciprocity* which exists between Body and Mind.

If a man, *with design*, express the Sound "*Hallo*," he must *first* be conscious of the auditory *Idea*, *Hallo*; and *next*, he will express that *Sound*; after which, his auditory Nerves will instantly *re-act* upon his Percipient the *very Sound Hallo*:—and this Process he may certify by a thousand repetitions.

Now, all Philosophers agree, that the Medium which *receives* the *Hallo* from the Mind, (or the mouth) and which *returns* the same by the Ear, is an *extended* Substance, or fluid, which acts *by Repulsion*: but this medium can *carry* from the Mind *nothing* but what it *received*; nor can it *deliver* back to the Mind any thing but what it *received*: and as it is acknowledged to carry nothing *(for sound)* but *Repulsion*, it must both *receive*, and *deliver back*, nothing but *Repulsion*.——————I trust this is a fair statement of the case.

Now, when we see one Cask repel another, it is thought undeniable evidence of Repulsion; and yet, the fact might possibly be otherwise: and when we, *ourselves*, repel a Cask, we know *one* side of the Process, and yet, by *possibility*, the fact might be owing to some other assisting agency.——But, when we *design* to express a *particular* Sound, by Repulsion of the Air, and find *that very* Sound instantly *reinflicted* upon the Percipient, we have *both sides* of the *Process* actually *in* the Mind; and it affords us complete demonstration, that the *Action* of the *Mind* is of the same nature with the *reaction* of the *Body* so far, that both are *repulsive*.

The Idea *expressed*, and that *received back*, in such cases, are doubtless more true to each other than wax to the seal; and, indeed, the Bodily *Vehicle* which intervenes, may be considered as passive paper which yields, both ways, to the impulses thus inflicted.

Knocking the hands, or the feet, together will, in some degree, illustrate this matter; but not with near that precision, or elegance, that is afforded by the Sense of Hearing.—

I know not whether this simple experiment has occurred to any other person, but its result I take to be decisive.

SECT. XX. ADDITIONAL DISTINCT INDICATION.

It is, I believe, remarked by Professional Gentlemen, that we cannot distinguish *essentially* betwixt internal Bodily Pain, and Pain from external Mechanical impulses.——Almost every Pain, is either a sense of *throbbing*, *cutting*, *gnawing*, *twisting*, *stretching*, *contracting*, *distending*—or some sort, or other, of *Mechanical Process*; and the Pains of *Heat* and *Cold* (which, from their *generality* of action may seem *least* to resemble Pains from Mechanical action) do, however, evince themselves, the former by a sense of *expansion*, and the latter by that of *contractions*. Thus the actions of our proper Bodies, upon our Minds, seem of the same *nature* with those of *external* Bodies when they act upon our Minds, having our passive Bodies betwixt.

From this we learn, that the Process which takes place betwixt the *Mind* and the *Origin* of the *Nerves*, must be of the *same nature* with that which takes place betwixt the *Surface* of the Body and any pressing *external Object* that Pains us; since the *Feelings* are of the *same nature* when our proper Bodies press, as when they only convey the pressures of foreign external Bodies.

I have now gone through the Evidences I intended to bring forward, *in demonstration of the Extension of the Human Percipient.*— In my more early Speculations I had no thought of being able to render manifest this matter, to the extent that is now done; but I hope that the Facts herein cited are such as take no denial: nevertheless, they are submitted with deference to the better discernment of those properly conversant with the subject.

SECT. XXI. VISIBLE FIGURES ARE OF THE SAME SPECIES WITH CORRESPONDENT TANGIBLE FIGURES.

I consider this the proper place to touch upon that curious Speculation of Bishop Berkeley, in his New Theory of Vision, which I here state briefly in an extract from his 127th Proposition—"There "is no Idea, or kind of Idea, common to both Senses,"—of *Sight* and *Touch*.

In this case he does not intend, merely, that *Sight* cannot contemplate the *same identical Figure*, or even entertain the *same species* of *Idea*, that can be done in the Sense of *Touch*: but (what is a very *different* consideration) he positively and at large insists,—that "no *visible Figure* is like unto, or of the same *species* with its cor"respondent *tangible Figure*."

Among the various arguments he advances to establish this position he says (Prop. 140.) "We can no more argue a visible and tangible "Square to be of the same species, from their being called by the

“ same name, than we can that a tangible Square, and the monosyllable
“ consisting of six letters, whereby it is marked, are of the same
“ species, because they are both called by the same name.”——And,
in Prop. 142. he says—“ it must be acknowledged that the visible
“ Square is fitter than the visible Circle, to represent the tangible
“ Square; but then, it is not because it is liker, or more of a Species
“ with it.”

The first remark I would risk upon this reasoning is, that the word *Square* can convey the same Idea, of *Sound*, to two men of different tongues; to one of whom it would also convey the Idea of a Square *Figure*, whilst to the other it would be only an unmeaning Sound; but, contrary to this, if a blind Chinese *cut out* a *Square* of board, and an Englishman but *see* the handy work, he will instantly see it a *Square*.

Here if any one rigidly object, that the man who *sees* this *cut Square* may recognise it, as a *Square*, because his Sight is already used to represent that as a Square which his Touch has found to be a real Square; I will admit this objection possible (though I may not think it the Fact) and will therefore vary the experiment thus.—Let a draughtsman line out a Square on Wood, and let the margin be cut away to the Visible Square; after which, let one who *never saw*, (but, who knows a *tangible* Square,) be permitted to handle this *visible Square*; I ask, will he not instantly pronounce it a *tangible Square*? ———Now, as this blind man never had but *one* of the two *Senses* in question, it is impossible that any deception can exist, such as might arise from a correspondent experience of both Senses together.

Bishop Berkeley seemed to think his position supported by

Mr. Molineaux's solution of a Problem, that a blind man, upon first receiving Sight could not *thereby* distinguish a Cube from a Sphere, both which he may have been previously accustomed to handle; but I do not think this affords strength (or even applies) to Berkeley's subject; because, though Mr. Molineaux may have judged right, this Problem related to Objects of *Solid* dimensions, which are *not* objects of *immediate* Vision; whilst Berkeley's position relates to *resemblances* between *superficies*, (which *are* the *proper* objects of Sight,) for we find he does not talk of *Cubes* and *Spheres*, but confines his reasoning to *Squares* and *Circles*.

One cause of the view which Bishop Berkeley takes of this question I suppose may be, that the two Senses, *Sight* and *Touch*, do not *usually* acquire their *correspondent Ideas* in the same way. If we prevent the locomotive use of hands and feet, the Sense of Touch is surprisingly slow, and vague, in apprehending Figure or precise Extension; and even, when the hands are duly used, they acquire Ideas of *Figure* by *progressive* handling of the *parts* of Figure; whilst, on the contrary, the eye can perceive moderate sized Bodies, or Figures *moderately complex*, at once.

Now, if the *progressive* operation of Touch be kept in remembrance we may suppose, that if a blind man were placed very near a *high square* Wall, and then to receive his *Sight*, he would presently begin to run his *Sight*, (as he used to run his hand) successively along the *four sides* of the wall; and thus, *gradually*, (by a finer sort of Touch,) he would find the *Figure* to be of the *same Species* with that which, from *handling*, he had learnt to call a *Square*.

But if, instead of so *large* an Object, the man had to try his *first*

Vision upon a Square of a *few Inches*, his Eye would embrace the *whole* four sides immediately (which his Touch had been used to do by *steps*) so that, though he would soon find the Figure to be of the same Species, yet, I think he must be at a loss in the first instance; and it is obvious, that this would not be a fair trial.

A man may draw a Square with his *Eye*, or write an *ideal* Epistle, following every letter with his visual organ alone; and if the same were marked on wood, and cut out, any instructed blind man might read this Epistle by *handling* it.——This, I think would scarce happen if no visible Figure is like unto, or of the same "Species with, its correspondent tangible Figure."

I believe it will be found that Touch cannot *immediately* contemplate *any* but the most *simple* Figures; and those of very small Bodies, such as a *Guinea*, or *Crown*, on the Palm of the hand; and more complex *Figures* are touched only by a *concatenation, in Memory*, of several *successive Touches* of their *parts*.—Now, this may fully account for all the disagreement there is between a visual *Idea*, and what is *called* its correspondent *Idea* from Touch; but this does not in the least shew any *specific* difference between a visible *Figure* and its correspondent tangible *Figure*.

On this question no trial of the two Senses can be fair, except wherein *both* are made to act, strictly, in the same way, whether the Process be *Synchronous*, or *Successive*.

Mr. Smith, in his Essay on the external Senses, agrees with me so far as to think, that there is more affinity between *Ideas* of Sight and those of *Touch*, than Bishop Berkeley admitted; but Mr. Smith, however, thinks that the Ideas, and Objects, of the two Senses are not of one *Species* or Kind.——Now: whilst I willingly notice so much of assent as I find in this Philosopher, I am, at the same time, obliged to remark upon his Essay, that it is open to various objections.

I have already quoted the remark of Professor Stewart that, in regard to our notion of *tangible Extension*, Mr. Smith, "all along supposes the Mind in possession of the *idea* for the *origin* of which "he is attempting to account."——This circumstance, therefore, is defective in his reasonings upon the Sense of *Touch*; but I must, in addition, remark, without wishing to examine farther, that though Mr. Smith justly animadverts upon the usual mode of speaking concerning the external Senses, and their operations; and points out the impropriety of the usual classification of *Secondary* Qualities;—he has, himself, not escaped falling into that very error.——For instance, he says, "*Colour* the visible, bears no resemblance to *Soli*-"*dity* the tangible Object;"—which Proposition supposes the *Object* of one *Sense* to be *within* the Mind, and the *Object* of the *other* Sense, *out* of the Mind.

This affords a striking illustration of my conjecture in Section VIII., that our usual way of mis-calling *Colour* the *Object* of Sight, has been established upon the vulgar belief that Colour resides in the *external Body;* which way of Speaking has even obtained among Philosophers, who lay down, (as unquestionable) that "*Colour* is the "*Object* of Sight."——But, not only have I already insisted that a *Feeling in* the Mind cannot be an *Object* of *Sight* (or, indeed, of

4.—Every *conscious Suffering* is produced by *Process;* and every *Action*, is *effected* by *Process.*

5.—Sensations, Ideas, and other Feelings, are not Objects, but *Modes*, of *Consciousness.*

6.—Sensations are *complex primary* Feelings.

7.—All our different Modes of Sensation (unless we except Smell) *primarily* betray *Extension*; and this is effected by a *peculiar complex Process* demonstrative of the Fact.

8.—It is a *necessary inference*, in Conception, that a Mind which feels Extension, in *primary* Fact, must be extended.

9.—It is a probable inference, that a Mind which operates by *Process* must (on this ground alone) be extended; Extension being the only conceivable medium of Process.

10.—Consciousness or Knowledge sometimes exists, and at other times does not exist; therefore Consciousness is an Accident, and it seems to *depend* upon Motion from external force.

11.—It is a probable inference, that all our Sensations are *occasioned* by Motions; and it is reasonable therefore to suppose, that all other intelligences are occasioned by Motions.

12.—It is a probable inference, that our Sensations are inflicted by Motions of an external Agent possessing *Extension.*

13.—Consciousness is an *intellectual Accident*; but the *mental* Motion supposed to occasion Consciousness is a *physical Accident.* —In such cases, however, we are not conscious of *Motion*; we are Conscious, *only*, in *correspondence with* a physical agitation of the Mind, and our Consciousness varies, as the Motion varies.—Here a distinction appears between a *mental* Accident, and a *conscious* Accident, and the latter appears to result from the former.

14.—Consciousness is produced from *Two Sources*, and all *conscious Accidents*, therefore, fall under *Two classes*.—The first is composed of *primary Facts*, otherwise called Sensations; and these arise from mental Motions occasioned by external Bodies.—The Second class is made up of Processes elaborated, in some way, by the *Mind itself*, *consequent* to the primary sort.

The above named Two classes differ not essentially, both sorts being intellectual; but they differ in *particularity*, and, farther, in that the *primary* sort arise in the Mind directly upon external impulses from extended Bodies; whilst *consequent* intelligences (as has been said) are furnished by the Mind itself, having their conscious *rise within*.

In this case I have adventured the terms *primary* and *consequent*, as being indicative of the natural order, and dependence, of these conscious Facts with respect to each other; which terms, I think preferable to those of *Sensual* and *intellectual*, because these last mark no proper difference, since all *Feelings* are intellectual.

15.—Bodies and Minds reciprocate by *common* Process.

16.—We perceive not Bodies themselves; but only the Affections produced in our Minds by Motions, arising either from the mediate impulse of Body, or from immediate impulse in the Mind itself.

17.—Bodies have (with regard to us) no quality except *Extension*, observing here, that I take a quality of any Thing to be a fixed attribute, losing which, it could not any longer be *itself*.

If this last is just, Figure is no quality of Body, because we can conceive Body to be infinite, in which case it would not have any boundary or Figure: but finite Body certainly must have Figure, therefore I leave it to others whether it should be called quality, or Accident. Here, however, I must repeat the remark, that Figure, at any rate, (strictly speaking) is but a mode of Extension.

After Extension, I think we shall find that all the nominal qualities of Bodies, are but *Accidents.*———Roughness and Smoothness are but particularities of Figure.——Hardness and Softness are mere comparative terms, what is hard to one degree of resistance being soft to another degree of it.—Motion and Rest are also Accidents.

Now, though Extension is the only proper quality of Body, yet none of our Sensations are produced (strictly speaking) *by* this quality; but all, on the contrary, are produced *by Accidents.*

Mr. Locke defines a quality of Body to be, a power to produce Sensations in us; and he has divided the qualities of Body into *two Classes*, or, into *primary* and *secondary* qualities: but it is nevertheless agreed that *resistance* of extended Body is the proper *occasion* of *all* our Sensations; and that, whilst Extension is the only *quality* concerned, it serves merely as a passive mean requisite, and the Process towards Sensation consists (strictly speaking) in the *Accident of Motion.*

Not only is the *classification* of qualities, into *primary* and *secondary*, without any foundation in nature, but the phrases used in consequence of this classification seem void of perspicuity.——— Thus whilst Extension, which is really a quality in Body, is justly so called, we also find *Colour* and *Sound* are denominated qualities of Body, though they are known to be merely Sensations in the Mind.

It appears that our several very different *Modes* of Sensation are produced by the *Stronger* and *Weaker physical Actions* of Bodies; and though we must suppose variety in *Mode*, as well as in degree, of Action, yet this vague distinction, being founded on truth, is perhaps less objectionable, than one which confounds the qualities of Body with the Affections of the mind. But this, of course, I merely suggest for the consideration of those who are competent to point out amendment.

The sketch here presented is not meant as complete; but merely to bring under one momentary view the most important points which result from the foregoing Speculations; and if the Propositions are well grounded, so far as they go, it is all that is presumed

CHAPTER V.

AN EXAMINATION OF THE NATURE OF THE MOST GENERAL AFFECTIONS OF MIND.

SECT. I. THE MIND IS AFFECTED BY FEELING, AND BY ACTION.

The Mind, considered as a distinct *Reality*, evinces admirable simplicity of Constitution; and its Affections are all comprehended under *Two* great *Classes*.

These two are——*FEELING* and *ACTION*.

SECT. II. WILL, AND ITS OFFICE.

Feeling and Action are divided, or articulated, by a sort of mental *disjunctive conjunction*, called *Will*; being a Point of Consciousness, at which Feeling *turns* to Action: and, concerning this Point, I must here offer a few words, previously to entering upon the *two* grand *Modes* which it articulates.

When any *Feeling* produces a complete *Volition*, we *Act*; but if

Action be withheld, by either intellectual or physical force, the *Will* then exists in an *imperfect* state termed *Wish* or *Desire*; which last has been called a Passion, though erroneously so, as will appear from different views in this inquiry. Here I shall only observe, that *Desire* is as *distinct from* the *Uneasiness* that precedes it, as *Will* is from the Motive that precedes it. In other words, Motives move Will, and Uneasimesses move Desire; but in Mankind *Motives* are *Uneasinesses*, therefore Will and Desire are moved by the same sort of impulse.

The most profound respect for Mr. Locke, does not enable me to agree with him in all cases. I am under necessity to remark, that in his Chapter upon Power, his reasoning upon this point is vague, if not contradictory. Its general tendency is to identify Desire with Uneasiness; and yet, in several places, it admits their diversity, as in the following: "All pain of the body, of whatever sort, and disquiet of the mind, is uneasiness, and with this is always joined desire equal to the pain."

I must so far anticipate the remainder of this question as to observe, that Desire (being a species of Will,) has always a *definite* Object, as, for giving in charity, or for eating charcoal; but both children and adults are often very uneasy, and yet cannot tell what they desire, that is, what they think would ease them.

Uneasiness is an Affection *in the Mind*, which may exist without indicating *any future* Thing; but *no Desire can* take place until we first *think* of the *Thing* which we imagine would relieve us.—— The Point of *perfect Volition* (though *felt*) seems to possess the *peculiarity* of being, in *itself*, neither Feeling nor Action; and I therefore submit whether it is to be considered a *Third* estate of the Mind.

SECT. III. ALL KNOWLEDGE IS FEELING.

I have advanced that Feeling and Action (articulated by *Will)* comprehend every Change incident to the human Mind.

The boundless fields of Thought and enterprise,—the never ending successions of Sensations, Ideas, Reasonings, and Results, farther elaborated by the Mind, itself, into Passion and Morals, and extending their courses through the intricate and diversified regions of Science; all these will be found not merely to proceed from, but to be themselves, in every step, either Feeling or Action. But, though all mental Affections rank under these *two* heads, *Knowledge* is included in *one only* of them.

The Motivity of the Mind does indeed assist *(mediately)* in producing Knowledge, by the exertion of *attending*, or by *turning* Attention, to its attainment; but this hinders not our being as *immediately passive* under *every Knowledge*, as we are under the most imperious Sensation.

Now this position, I am aware, is so opposite to the ordinary language of the best writers, that it is necessary, here, to take a desultory view of those *processes* of *Knowledge* wherein the Mind is thought to be *most active*, in order to ascertain *what kind* of Activity it is that it does exert on such occasions; or, to learn if it ever evinces any other sort, than that *Attention* which I have above admitted as *mediately* assisting to admit the entrance of Knowledge

Scarce any phrase appears to me less explained by the use generally made of it, than that of *mental Energies.*—Whether it is owing to the vanity of man, that most conscious *Sufferings* are so frequently called *Acts* of the Mind, I know not; but imagine, that the continual wish to raise ourselves above the inertness of Body, may have had some influence in establishing this mode of speaking, which indeed is so current that we find it indiscriminately used by authors, who in reasoning upon its strict propriety would doubtless condemn it.———Mr. Hume says (Essay VII.) "An act of Volition produces "motion in our Limbs, and raises a new Idea in our imagination," ———yet he confesses—"We are more master of our thoughts in "the morning than in the evening: fasting than after a full meal." ——And I must suppose he admitted our power over the succession of Ideas to be merely occasional, uncertain, and *mediate.*

It is quite unnecessary to cite instances; for, besides the above mentioned *Acts* of Imagination, we find, in different authors, the *Acts of every mode of Feeling*: and, I think some even say, that a Sensual impulse awakens the *dormant Energy* of the Mind, and that by the mutual *Act* of the Mind and the Organ a Sensation is propagated.

Now Energies, I suppose, must belong to an Agent; and an Act which is not voluntary is *no* Act at all, however energetic a motion it may be.—This being the case, I leave it to common Sense whether a man is in the least part an *Agent*, or *Voluntary*, in racking himself with Pains of the Gout, however Active, or Voluntary, he may have been in eating and drinking those good things which brought the Gout upon him.

A man may voluntarily exert the energy of his Mind to heighten a Pleasure; or, he may incontinently exert a similar energy under the knife, and thereby heighten a *Pain;* but the *Feeling* received in *both* cases alike is but *Suffering*. The exertion of Attention in the one case followed *Will*, and the exertion of Motion in the other, followed Desire; but the feeling of Pleasure did not properly arise from *Will*, nor did the increased Pain arise from Desire—On the contrary, the Pleasure arose *immediately* from *some intellectual* impulse;—and the increase of Pain followed the increase of the knife's Action upon the man's Nerves.

I must here remark that as the *Non-extensionist* supposes *no physical Action* of the Mind, when he talks of *Acts*, of Memory, of Consciousness, and of Imagination, he must mean *Acts* of *Knowledge*, that is, absolutely the *making* of Thought; and, if not this, I ask him to afford some notion of what kind of Act it can be?

We uniformly see Lead melted by heat, and Wax whitened in the Sun, yet we never suppose either of these masses of Body to exert any Energy to produce such change.——It is equally uniform that the most *detestable Sensation*, *Remembrance*, or *Judgment*, arises irresistibly in the Mind when the proper impulse of either occurs: and when such impulses (respectively) are *absent* we can no more command these Feelings than Lead can melt itself.——Even in cases of the readiest Memory, our *Will* is only the *mediate not the immediate* occasion of the occurence of any idea.

Sensation, Memory, and Passion being, all of them, undeniably Sufferings, I may here at once observe, that our mere denial, or assent, to the most trifling Proposition is as truly a *Feeling*, as is a Sensation from a Sword.—To assent is merely to Feel a *conviction* of

The Mind of a Philosopher, traversing the yet unknown regions of Science, operates radically in a similar way with that of a curious Boy shut up in a closet full of holes, watching the flight of a number of Pidgeons round him.—The Boy desires to see the Pidgeons, and having caught a glimpse of one, lo! it is *Blue*.—He, then, watches to see others, and having succeeded with a Second, it is *White*.—He had in his option to watch, or not to watch; but, having watched until the Pidgeons crossed his attentive Sight, this watching constituted the *whole* of the *Active* Process, and he cannot now avoid seeing them; neither can he make the *Blue* Pidgeon *White*, nor the *White* Pidgeon *Blue*.—These Facts he *suffers* irresistibly.

Thus, all Knowledge through *design*, is nothing but accession of *new Sufferings*, which the *Voluntary* or *Active* changes of the Body and *Mind* have put us in the *way* to suffer: and all Knowledge acquired without design, consists of similar *Sufferings* unsought. ——The *Mind*, truly, is often *active*, and most *laboriously active*, in *search* after Knowledge; but ever as *passive* in *finding* it, as in suffering a blow which we have voluntarily put ourselves in the way to suffer.

Abstraction is properly *an Act* of the Mind, because it is that conscious Process wherein we voluntarily or designedly (in our thoughts) consider separate, one particular attribute, or a number of attributes, of a Thing, from several other attributes which belong to it.——But *Abstraction is not Knowledge*.——It is nothing but a *designed ideal* separation of *parts*, of Knowledge *already in the Mind*; and the only *Act* which the Mind performs in this case, is *merely attending* to one, or more attributes, *without attending* to others which belong to the Thing.

This Act of the Mind called Abstraction leads to Knowledge in a prodigious extent; whilst, without it we should never be able to make much progress; but, I repeat, it is not, itself, Knowledge; and as no *Act* of rationality can have higher pretension than it, we must admit, that in conceiving Knowledge the Mind is passive.

In reasoning thus, I speak as I feel, which I purpose doing throughout: and, notwithstanding any over simplicity which may appear in this account of Reasoning, I trust Facts will support it. ——It is true, the Mind displays wonderful Energy in *varying* its Attention to the endless materials supplied by Sensation and Memory; whilst remembrance of the past suggests new *Objects* and modes of Attention; but, through all these seemingly intricate Processes, I suppose the Mind to exercise no more *Faculties* than a dancer does in all the changes of Posture which he assumes.

Confusion must infallibly arise from attributing the Notion of *particular Agency* to any of our *Modes* of *intelligence.*——*Reasoning* is but a *Process*, as Sensation is a Process; and the result of each is equally *Feeling*. Reasoning, indeed, is a Process elaborated *complexly* , or consequently, by the Mind itself; but Sensation is a Process elaborated also (though more simply) by the Mind itself; and in both cases alike the Mind is under *necessity to Feel.*

Something more of this will be offered under the head Understanding; but I conclude this by remarking, that I hold the Universal Sense *Consciousness* to be no more of the nature of a *Faculty*, than any of its *Modes*: On the contrary, I take an instance of Consciousness to be only an Accident befalling the Mind, during which it feels.——I take the Mind itself to be, or to contain, a Faculty;

not because it suffers any thing, but because it has *Motivity*, or, can *Act*.

If it be observed by those who are not inclined to dispute the matter, that the term Faculties, applied to our various Modes of Feeling, cannot be *literally* meant, but only used conveniently to distinguish these Modes; I must object, that the *language* usually held, (including the misnomer of *Acts* for *Feelings*,) carries the impropriety much farther; whilst we never find any apology made for such mode of speaking: and that, (even if it were no worse,) it seems a *continuance* as *unnecessary*, as it must be admitted *fallacious* in misrepresenting the Constitution of the Percipient.

SECT. V. IMAGINATION IS FEELING.

The usage which has obtained, of the terms *Faculties*, and *Acts*, of Thought, seems to question the Unity of the Percipient; and must tempt a plain man to suppose, that the Mind consists of a commonwealth of Powers, whose authorities may differ, and interests vary.— But, having discussed the pretension of the principal *Mode*, *Reasoning*, I am now to inquire if Imagination has any better claim.

If one Man has not that supply of Ideas, called Imagination, so readily, as another, his *Will* cannot directly help him, any more than it could if his *Sight* were duller than the other's.——Neither can a Man's *Will*, directly prevent his having delicate, or gross Imaginations, any more than it can prevent a gross Scene from annoying his Eyes, if it find them without a tenant. So true is this, that a Man of *delicate* Imagination is *doomed to suffer gross* Conceptions.

This boasted Faculty *Imagination*, then, is no Faculty at all; but only a degree of *general Susceptibility*: which, however, *may be*, by *Volition*, placed in a variety of postures most favourable to receive Conceptions, when we *wish* them to strike us *otherwise* than by chance.

All Men possess this Capacity for Thoughts, but the *extent* of it depends on the *generality* of Susceptibility, or upon the Mind not being *habitually confined* to *particular* Objects.

A short-sighted house or market *lie*, is as *truly* a work of *Imagination*, as is *Paradise Lost*.

When a vendor assigns to his goods latent qualities, which he *knows* they do *not* possess, he first *feels* that such qualities would be valuable to himself, and therefore *feels* a *belief* that they are so to the purchaser. So far *Will* has nothing to do; all this *strikes* him unavoidably. But now comes *Will*, and gives utterance to this *Imagination*, calling it truth.

Thus, in a little *episode*, during the sale of a rotten Herring, the Mind performs that *sublime* operation which has been called the work of a *creative* Faculty. A faculty which is pretty generally displayed in our day, though the possessors of it are rather variously gifted in point of elegance.

Two persons are associated in some fraudulent compact, which *both feel* either a *conviction*, *belief*, or mere *suspicion*, will come to light. *Both* are *willing* enough to *invent* a fiction to hide it; but

Will cannot help them. At length to one of them *occurs*, or the other is *struck by*, such, or such a train of Ideas, which are adopted as they flow, *involuntarily* though *wished;* and the drama being thus *gratuitously* furnished, *Will steps in*, and gives it representation, with the violated name of truth.

Will is here, as in all cases, the point of *Articulation* between Feeling and Action; but it is so usually the practice to miscal *Feelings* by the name of *Acts*, that I deem it highly necessary to discriminate.

It is my decided intention, as much as possible, to avoid contrasting opinions, that I may be enabled to proceed with brevity; but in some cases it will be necessary; and here I cannot help citing Dr. Hartley, as by many considered a good authority on mental Mechanism. In his Introduction he says, "The Will is that state of "the Mind which is immediately previous to, and causes, those ex-"press acts of Memory, Fancy, and bodily Motion, which are "termed voluntary."

When an erudite Treatise sets out with stating *Memory* to be an *express act*, and *Will* the *cause* of that act, I must think it very unpromising; because the *fact* appears to me directly the contrary, and not *to me only*, for I believe the opinion is general.

If Fancy (Imagination,) is an express *Act*; and *Will* is its *Cause*, why does not every Man, of an equal stock of experience, fancy as well as Milton, or Shakespeare? Or why is a susceptible Man's Mind haunted by Fancies which he *wills* to drive away; but finds, that all such *Volitions* only *refresh* the Idea; and at length perceives, that the only way to escape such Imaginations, is to place his *suffering* Mind in some situation wherein *any stronger interest* may *strike* it? *Memory* and *Imagination* are *not* express *Acts*, but express *Sufferings*. And *Will* is not the immediate cause, nor occasion, of either, except in the same sense that he who turns the barrel of an organ is the cause of the music. The barrel has its adapted capacity, and this is acted upon by various impulses, which certainly differ, in analogy, from those of the Mind, because none of them, nor of the musical Motions, are internal in regard to the Barrel; but the music is certainly *no Act* of the barrel, any more than of the grinder; and neither the Volition which turns it, nor the Barrel itself, could cause any music, if the latter were not *struck* as it *revolved*.

It is admitted that the Mind cannot make simple Ideas; but what is here advanced is, that the Mind does *not Act* in forming *trains* of Ideas: it only *sustains* them as they *occur*, *present*, *strike*, or, sometimes *attack* us, spite of all guard.—All that *Volition* can do in such cases is to place our *Bodies*, and *Minds*, in such situations of *locality* and *attention*, as may be most favourable to sustain a *flow* of Ideas. When these trains have so struck us, we may leave out what parts we please, and select the others for our drama; but this has nothing to do with their accession or prevention, over which we have *no direct Power* whatever.

Having now, in part, examined the two Modes called, *Reason* and *Imagination*, I find, that in either of these the Mind operates *only* by *Acts* of *Attention*, and by *consequent Sufferings*.—There can, indeed, be no doubt that some wonderful *internal* Mechanism *occasions* the various *Sufferings* called *Knowledge*; and that, in producing it, the Percipient conceives in *various* ways; but, as these *Sufferings* are *necessarily consequent upon Attention*, and very often irresistibly occur *without Attention*; or, even, in our despite and abhorrence, it is past dispute that in conceiving Knowledge we no more *Act* than a *Sponge Acts* when it *expands* upon imbibing Water.

THE

FIRST REGULAR VIEW

O

THE MIND.

THE foregoing Discussion necessarily introduced a *partial* consideration of several Conscious Processes; but not in that regular order which the natural accession of the different phenomena of Thought in some degree indicates.

With the present View begins a Consideration of our several *Modes* of *Thinking* and of *Action*, as they *originally* occur after our introduction to life: and to this is added, some account of the *Co-operation* of the *Mind* with the *external World*.

The most prominent points which will appear in this View are, the *Law of Interest*, and an *Hypothesis* adapted to this *Law*.——— With regard to the last, I am aware with what distrust it will be received by those who maintain the Principle of *Non-extension*; but as I entertain a humble confidence that the Discussion clearly *demonstrates* a *proper physical connection* between Body and Mind, and am, besides, supported by the general conception of many erudite Immaterialists, I hope these last mentioned will indulge me with a candid hearing; and it is certain their interest is concerned if I happen to be right.

But Immaterialists (including all parties) form only one side of opinion on this Subject; and it must be of high importance to direct my arguments to the very numerous, intelligent, and powerful class of *Materialists* now in the World; who (resolving to be guided by physical Evidence *only*) will never suffer themselves to be influenced by a *sublime mystery;* but who must, nevertheless, be affected if a *physical* Hypothesis, strongly built on *Facts*, shall manifest the probable Existence of a *distinct Mind;* and still more so if it be shewn, at the same time, that the *Brain* (upon whose *Agency alone* they *rely*) is *physically incapable* of mental Operations.

The present View of *Conscious* Processes is, of necessity, illustrated by collateral reference to correspondent *physical* Processes: but, although the two *Classes* of Propositions are thus *intermixed*, they are not at all meant to be *confounded.*

CHAPTER I.

OF THE SUSCEPTIBILITY OF THE MIND.

SECT. I. THE MIND IS PASSIVE AND ACTIVE.

The Mind must be viewed in two different *Capacities;* and First, agreeably to the order of its *natural* condition, it should be treated as *passive,* in being the *Sufferer* of *Sensations,* of *Memory,* and of *all Knowledge,* including that of intellectual Passions. Farther, in a word, Mind is the *Sufferer* of *every* possible instance of Consciousness; and equally *feels* when it properly *Acts,* as when it is merely *passive.*

Again, the Mind is to be viewed as *active,* in being the mover of *itself,* and of the Body, by a *sole* inherent Spring, which it exerts in all cases of *both voluntary* and *incontinent* Motion.

Reserving the consideration of the Mind's *Motivity* for the next Chapter, I shall here offer some account of its *passive* or *susceptible* office; but, in the outset, I may be permitted to observe, it is very difficult to detect, and accurately describe, the operations of the Mind, though every Man has within himself the subject he is to work upon, and the implements he is to employ. This is evinced by how few have any comprehension of the subject; and still more so by the diversity of Opinions among those who are best endowed with discernment this way. Hence a vague, incorrect, or very false description, may pass for a clear and just one, with those who have never bent their Minds to discriminate *rigidly* between the different parts of Processes.———To arrive at any accuracy, herein, must be the result of minute Attention; and, in many cases, not attainable without repeated correction of our opinions, and more particularly of our language. This, at least, I confess to be my own case, and I can have no self-assurance that I have succeeded at last.

SECT. II. THERE ARE SEVEN MODES OF FEELING.

The Mind is endowed with exquisite *conscious Susceptibility*, owing to which property it must receive every possible impulse, *sensual* and *intellectual*, which assails it, so long as any of its *Susceptibility* remains unoccupied.

The *Conscious Susceptibility* of the Mind, I think, *naturally* divides itself into *Seven* principal Modes, which I must name thus,

1. *Sensation*,
2. *Interest*,
3. *Memory*,
4. *Understanding*,
5. *Passion*,
6. *Imagination*,
7. *Feeling from Co-existent Impulses.*

After investigation I think it will appear, that *Six*, of these Seven *Modes*, *must occur* in this *Order* of *Succession*, after the beginning of Life; that is to say, the *later Mode* could *not exist* if the *earlier* Modes had not been *previously* called into Existence.

Of these Modes I shall here offer an outline, in the above mentioned order, in which they seem *necessarily* occasioned in the Mind.

SECT. III. SENSATION IS THE FIRST MODE.

Sensation, it is well known, is the *earliest Mode* of human intelligence; and all other Knowledge is, in some way or other, *consequent* to it: upon which, perhaps, little more need be said in this place.—I may, however, observe generally, that Colours, Sounds, Odours, Tastes, and gross Sensations, (*all* which come by *Motion*, from external Bodies) are Feelings which produce those *Interests* and other intellectual phenomena, which *subsequently* befal the Percipient.

SECT. IV. INTEREST, THE SECOND MODE.

Sensation, and almost *every* other absolute *intelligence* in the Mind, besides being intelligence, is *apposited* with some Feeling of *Interest*, which consists in our liking, or dislike, of such intelligence.

Interest, though concomitant with, is quite a *distinct* Feeling from Intelligence, therefore *almost* every instance of Knowledge is a *complex* Consciousness, being *Intelligence apposited with Interest*.

This mode of Feeling, which I call *Interest*, and which seems so generally neglected as a branch of mental machinery, will however be found, (speaking figuratively,) to be the great *Movement* that supports *Memory*, as well as the *main Axis* upon which our *Affections revolve*.

The *Sense* of *Interest* is an *extensive*, and almost as *universal*, as Consciousness itself; and fails in only a very few minute points of our sense of Existence. *Nominal* indifference often takes place, and there must, indeed, be a neutral point betwixt Pleasure and Pain; but, if Philosophically considered, *very few* Feelings are *strictly neutral;* and, if such happen, we must *detect* them at the *moment;* for I think it certain they *never* will be *remembered.*———Intelligence and its Interest (I repeat) are *quite distinct* Feelings, though concomitant, or *apposited* to each other; and I think I may safely name Interest *subsequent* to *specific* Sensation (which is its earliest occasion,) although it *appears coęval* with it.

The Mind by its inherent limited *Motivity* often can direct its *voluntary* Attention to a few Objects, or to any one Object; and if it *consequently* become *exclusively interested*, the result is, that we *unavoidably*, and *unwarily*, suffer the expulsion of *other present* Objects, or else *approach toward* such a state, by suffering a *diminution* of the *Feeling* had from such Objects: and this result will approach to be more complete, in proportion as the interesting Object has *much Interest*, and the *vanishing* ones very little, or *none* worth notice.

A similar Process, and result, will take place, if, instead of a cool Volition, the Attention had, from the beginning, been involuntarily drawn: and the expulsion of *weak Interests* will be most certain, and complete, when the stronger Interest is compulsory or imperious, as in cases either of *sensual* Anguish, or of *Anxiety*.

Interest, as here used, is a term which comprehends both *Pleasures* and *Pains*. These are of *endless varieties*; and, as to *degree*, I estimate Pain in the extensive sense of Mr. Locke, as embracing all estates, from *Agony* down to the lowest Feeling of *Uneasiness*; whilst, on the other hand, Pleasure includes every state better than mere neutral indifference.—At the same time, I make *no essential* distinction between sensual and intellectual Pain or Pleasure, though the *impulses* that produce them are from *opposite Sources*.

Interest of *Sensation* is always acknowledged to be *itself Sensation*; and I have argued it to be *one* of *several components* which enter into every *whole* Sensation; but here it is considered as one of the grand *Modes* of Susceptibility, being a *peculiar* ingredient in almost *every Feeling* of the Mind, *intellectual* as well as *Sensual*.

SECT. V. MEMORY, THE THIRD MODE.

The Mind is farther endowed with a very remarkable *sympathetic weakness*, owing to which, if it be at any time affected by a *complex* Feeling; and if, after an interval of Time, *any part* of such complex Feeling be *re-inflicted*, (or any *near similitude* of any part thereof,) then the *Mind itself* will *relapse* into the *whole original complex* Feeling, in a fainter degree, or, at least, will *tend* thereunto, in proportion as the said original Feeling was of *some Interest*, or has *gained Interest* by any *Accident* in repetition.

If the original Feeling be taken as simple, instead of complex, then any similitude, as well as any associate, may occasion the relapse.

This sympathetic *relapse into former Feelings*, is called *Memory*; and in Memory are associated not only *Ideas*, (by which are usually meant relicts of Sensations) but also all past *mere intellectual* Affections, combined or accidentally intermixed with Ideas, as in one repository. *When* these are *reproduced* it is *not by an active Energy*, but, truly, by a *weakness* of the Mind; that is to say, by an *involuntary* Affection which no human Mind can, directly, either command, or prevent.

To this account must be added, that *Memory* is accompanied by an apposited conviction that we have had the *Originals* in the Mind before. But Knowledge may re-occur, either disjointed, or preposterously jointed, and without such conviction; and then the Affection is called *Imagination*.

It is not here intended to treat upon Memory farther, than to assign its place; unless I assume the position, that it is not an operation of the *Brain*; which I shall endeavour to establish in its proper place, at the same time that an adequate instrumentality may, perhaps, be assigned to that Organ.

In this place it need only be added, that *Interest* is the sole parent of *Memory*.—We remember, precisely, in the degree in which we have been *interested*; and any circumstance that had, *strictly*, neither intrinsic nor associated Interest, will never be remembered at all.——Now this shews Memory to be *necessarily* the *Third Mode* in the order of original accession.

SECT. VI. UNDERSTANDING, THE FOURTH MODE

After *Sensation*, *Interest*, and *Memory*, the next *Mode* of Feeling *occasioned* in the Mind, seems to be that which is *usually called* Understanding.

This Mode embraces a very numerous class of Affections, and includes Comparison, Intuition, and Induction: also, *Reflection* upon the Operations of our own Minds, and upon all other circumstances; together with Abstraction, Generalisation; and other processes of *consequent* Knowledge.

What has been advanced (Discussion, Chap. V. Sect. IV.) concerning the procedure of the Mind in the Reasoning mood belongs properly to this head; and I wish it to be so considered, although necessarily introduced there in order to shew, that Reason has no claim to be considered a *Faculty*.

Now I have therein very plainly argued, that in Processes of Reasoning upon external Things, the Mind performs *no Act*, and exercises *no Power*, save and except a voluntary Attention to external appearances, and related conceptions; in such postures of Body, and Mind, as the occasion may require.—And I here continue in the persuasion, that in those Processes of Consciousness wherein we acquire the Notions of Self-existence, the World's existence, Time, Motion, Identity, and the like, the Mind performs *no Act*, and *exercises no*

Faculty, except a voluntary Attention to *what passes*, or *has passed*, within itself.———When, such *voluntary Attention* has procured us a glimpse, or a more durable view, of *internal appearances* or Feelings, (such as any of those abovementioned,) we *suffer* them, as the Boy must have seen the pidgeons; that is, *irresistibly*.

What is more, I think that numberless instances of what is *called Understanding* are *forced* upon us, *without any Volition* to *attend*; and in such cases the Mind is *merely* passive, as it is during *Sensation* and *Remembrance*.

But to speak *rigidly*, *Understanding* begins from *Sensation* itself, and to feel hunger is, in a very limited degree, to *understand*.——— From this low Origin commences Knowledge; and Perception of Sensation belongs to Reason, as part to a whole, which also it must, otherwise Reasoning is no *essential Feeling* in man.

The earliest *complex*, or *consequent* Process of intellection seems to be *Intuition*, which is the perception of equality, or difference, between two *Things*, or Ideas.———Now, to effect *Intuition*, it is *necessary* to *compare* two Ideas, and for this purpose we use both *Sensation* and *Memory*, which last could not exist without *Interest*. Thus we find, that the very first steps of *Reasoning* must be the *Fourth Mode* of Susceptibility *experienced*

It is here evident, that to the Mode called *Understanding* belongs the continually repeated operation of perceiving those external Things which surround us.———We know we must *learn* to *perceive* those foreign Objects, as we learn any other Art or Science; and, though an ignorant man assures himself that the Knowledge is *immediate*, it is past dispute that the acquisition is gradual; in which Processes *Sen-*

sation, *Memory*, and *Judgment*, each take a part; whilst the Feeling of Interest is absolutely necessary to the operation of *Memory*.

SECT. VII. PASSION, THE FIFTH MODE.

The Mind is the immediate seat, and our *Judgments* are the immediate *occasions*, of all *mere* intellectual *Passions*, (*properly* so called) which, like *Sensations* and *Ideas*, are *nothing but* Modes of *Feeling*, that exist when the *Percipient* is placed in this, or that, general posture: in which *generality* of posture Passions so far differ from Sensations, because Sensations are more *partial* Affections.

Passion, here, is opposed to *Action*; and the term is used only to denote *excess* of Suffering; whilst *lesser Sufferings* have no such emphatic distinction.——Passions are *Processes* of the *Susceptibility* of the Mind; but their *occasions* are in its *Motivity*: therefore no Passion can have Existence until the Mind's *Motivity* has been exercised.——The term Passion, however, is not the less proper, because, though Passions are produced by the Motive Principle, the Mind is therein under *necessity* to move, *consequent* to its own *Judgments*.——The Stimulus is in the Mind; but the Motion is *incontinently* given.

The Passions, in fact, are *consequent* to the *Four* Modes already here described; and cannot possibly precede either of them in original accession.

The very *earliest* of intellectual Passions we can feel, is that called Fear; (which is the common root of several Passions,) but Fear cannot be brought into operation until after we have felt *Pain*, and *absence* of Pain, and *Memory* of Pain; and it is obvious, that Fear cannot exist until we have so much *Understanding* as to *expect* a *return* of Pain.

Pain, probably, happens to be *apposited* with the very earliest Sensations we have in coming into life; and this impulse soon gives place to Indolence, or to a pleasing Sensation.

As nervous Pain comes to be *repeated*, the Mind *notes these repetitions*, together with *present intelligences*, which, to it, come to *appear* as *causes of* the evil; and when, thereafter, it perceives any of these associated intelligences, this *occasions* an *expectation* of Pain, under which *expectation* the Mind becomes *agitated by an Affection truly painful in itself, though not the least like the Pain expected.*—This intellectual Pain is *Fear*; and under it the Mind *acts incontinently*, and variously, upon the whole Nervous System; the convulsion of which last is felt back by the Percipient.——Thus it appears, that Fear immediately follows a Judgment of the Mind; and it will be fully argued in treating on intellectual Pleasure and Pain, that *every Passion* we have, is immediately *occasioned* by a *Judgment*.

This Section is not intended to treat on the Passions at large, but only to point at the Office of the Mind under Passion.—In so doing it is here proper to remark, that in several of our nominal Passions the Mind is really *Active*, or at least *disposed* for Action.——For instance—Revenge or a *wish* to hurt another who has injured us; and Envy or a wish for Evil upon one who has surpassed us.—In neither of these cases is the Mind passive; but, on the contrary, it exerts Desire or Volition withheld, the *Activity* of which is universally acknowledged, for we always ascribe *praise*, or *blame*, to our *Desires*, whilst it would be absurd to do the like of our mere *Suffering*.

SECT. VIII. IMAGINATION, THE SIXTH MODE.

Of all the Modes of Feeling which take place in the Mind, the last we begin to experience is that called *Imagination*.——Some account of this *Mode* has already been offered in the last Chapter of the Discussion; and what has been there advanced may be considered as attached, to what is now added in the *natural* order of accession to the Mind.

The first grand requisite for the Process of Imagination, is a Stock of *experience*, or of *Ideas* stored in *Memory*; and after a Mind has been so enriched, it is subject to fall into its several Modes of past Feelings, in some way *different* from the order, and manner, of their *former* occurrence.

Memory, indeed, affords the Materials of Imagination; but still, many of the *Ideas*, (and *Groups*,) of *Imagination*, are not mere new combinations of Ideas remembered.—There is a *sort* of *Creation* in the case; and it would appear to be the most complex and unaccountable of all intellectual Processes.——We are master of two facts regarding its rise, which are, that it arises from experience as its parent; and that, if it is a species of Creation, it is not a *Voluntary* act.

We have *no immediate active* Power to form Ideas of *Imagination*, more than Ideas of Memory, nor more than we can make Sensation itself.——The new appearances, (whichever way they are regenerated from the old,) *flow* upon us as a *tide*, and strike as we lie tranquil —and it is certain, this flood is never more abundant than when the Mind is most passive.

Whenever the Idle Mind begins to resume Activity, and to busy itself about Truth, and real external Things, the mysterious and enchanting stream of *Imagination* gives place to that of *Memory*: and, in mixed cases of *Interests*, we find Ideas of Memory and those of Imagination, flowing *intermixed*, and co-operating with each other.— So far would the most energetic *Volitions* be from producing a flow of Ideas in *Imagination*, that they always produce the contrary, as certainly, as it would prevent the regular Motions of a Watch if we were to shake it *violently*: and in any case of Imagination, all *strong* agitations are prejudicial.——The Mind, as well as a Watch, is kept going by containing a *proper arrangement* subjected to a *proper impulse*:—and we know that Volition is not the *immediate* mental impulse to *Ideas*, from this very fact, that it *may impede*, but *never can give* the current of them.—By volition, in this case, we can do with our Minds, as we do with a Watch, and no more; that is, we can place it in a position most favourable to *permit* the co-operation of the *arrangement* with the proper *impulse*; and, in so doing, the less we agitate either of them, the *better* it will perform.

This account, which *is not Hypothesis*, but *Fact*, strongly indicates that *Motion of Substance* is *somehow* concerned in such Processes.

All that I have *here* farther to do with this Mode of Feeling is to assume, what is admitted by all, that it results from varied observation, and cannot exist without it; consequently, it *must* be *preceded* in operation by all the Modes which have already been enumerated.

SECT. IX. FEELING FROM EXTENSION.

Since my former division of the *Modes* of our Susceptibility into *Six*, I have been induced to think there is One more; which, from its peculiarity, extent, and importance, is fully entitled to be called a *principal Mode* of *Feeling*.—This is our *Feeling* from *impressions Extended within the Mind.*

The Subject having been fully insisted upon in Chap. III. of the Discussion, nothing more need be advanced in proof; and I now merely assign its place with the Six other Modes.———I don't indeed attempt to fix its place in the Order of *accession;* but whatever place it may be found to claim, the Order will have to be altered in regard to it *only*.

I have argued that all the Five Senses, (unless we except Smell,) do certainly betray *Extension*; no matter how vague it may be in some of them, *especially* since in that of Touch (in impressions upon our *Bodies)* no man can readily define Extension and Figure much better than he can in that of Taste.—

In general therefore it may be said, that our Sensations are *complex* (consisting of *Species, Interest*, *Extension and Figure*:) and, as we find *it* impossible *to separate* the Feeling of Interest, from that of Colour, or Touch, which gives Interest; so we equally find it impossible to separate the Feeling of *Extension* from any Sensation of Colour, or Touch. We can *overlook* or *neglect* either of these, or we can discourse upon either Interest, or Extension, abstracted from the colour, or Touch; — but we cannot actually *Feel* (or so much as *conceive*) colour and visible Extension to exist *discerpted*: and yet we are *conscious* that both *Interest* and *Extension* are each *peculiar*, and each utterly different from *Colour*, or Touch, or, from any *specific* Sensation which may occasion them.

From this Account of the generality of the Feeling *from* Extension, and from the vast importance of this Feeling, it will appear how truly it holds an equal *rank* with Interest (that is with Pleasure and Pain) as a grand *Mode* of Susceptibility, to which place I have here introduced it.

SECT. X. SUMMARY OF THE MODES OF FEELING.

Having thus offered a very brief introduction to the several Modes in which the Percipient becomes *Susceptible*, I think it undeniable they must *originally* befal us in the order here set down, unless we except the Feeling from Extension, whose place I do not pretend to assign, nor deem it now of any apparent consequence.—The grand object, here, is to shew, and to fix, the *order* and *dependence*, which our Feelings have with regard to each other.

Sensations are, confessedly, our *First* intelligences in life; and these *necessarily* produce *Interest*.——*Interest* (I shall fully argue) is the *Sole parent of Memory*.——Memory and present Sensation (or two

Sensations) *compared*, is the *first complex* Process, of *Understanding*:——and Understanding *must* be used (however poorly) before we can suffer the very earliest mere intellectual *Passion*, because *Fear* cannot take place until we have *Understanding* enough to *expect* a *return* of Pain.

Now, an infant is susceptible of *Fear*, which shews how very early in life Five of our principal Modes of intelligence have operated; to which, doubtless, we may add the Feeling from Extension: and it appears, that *Imagination* is the only Mode which does not arise in early infancy.————It must indeed be supposed that a young Child can feel only very low degrees of *Memory* and *Understanding*; but the Fact is certain that it feels *Fear*: and I think the best authorities will agree, that to do so, it must *first* feel Pain,—and absence of Pain,—and Memory of Pain,—and *Judge (in a way)* that Pain is about to return.—This, therefore, establishes the *Order*, and *dependence*, of our several Modes of Susceptibility, as herein advanced.

CHAPTER II.

OF THE MOTIVITY OF THE MIND.

SECT. I. MOTIVES TO ACTION.

THE Mind appears endowed with a qualified *Motivity;* and, though we cannot assert it to be an *absolute* Agent, because it ever appears limited by a condition, yet it is equally apparent that it possesses *some* sort of Motivity, as that its Motivity cannot be exerted without the condition annexed.

In considering this Motivity there are two principal Facts which I wish to render manifest.—First, that our *Motivity is Sole:* and, Secondly, that the *Spring* which *moves* the Mind to Action, whatever is its proper Nature, is at least in *some way* considerably *different* from that by which *Bodies re-act.*

Since it has been demonstrated that the Mind acts by Process, (and by the medium of Extension) an impulse of the Mind against the Body, *must resemble* the Action of Bodies; but the extended Mind, I conjecture, *is actuated by a Spring peculiar to Minds;* and though it is continually re-acting in a physical Sense, (that is, in its physical capacity as an *extended* Thing,) yet *its Action*, I suppose, in *all possible* cases, to proceed from that peculiar mental *Power*.

Concerning this, something more will be offered in Chapter VI. of this View; but, although I hope that truth may be found under such indication, yet it will be vain to set out in search of it if we, through prejudice, close our eyes whenever it appears under any garb which we may think unfavourable to our interests.

That we never perform any *voluntary* Act of importance, without being influenced by a *consideration*; and, that such consideration is always *the most urgent* "*present uneasiness*," which makes us desire the Act; is a truth so manifest and undeniable, that I think no conscious Fact is more evident: and it requires but little attention to perceive, that it must be the like in *every* case of Volition, however *trivial*, or however *foolish*.

In all cases of what is *called involuntary* Action, it is the very same; for in such we always yield, (without heeding consequences,) *to the strongest pressing* Uneasiness, which makes us desire a change. —*Desire* here operates under the *same Spring* that in other cases moves *Will*; Desire being only *Will withheld*.

We must, I think, also accord to the Necessarian, (past dispute,) that we should act in the very same way a thousand times over, if we were so often replaced in *precisely* similar circumstances, *including the disposition of* the *Mind itself*: and to deny that we would do so; or, to assert that we can *act without a Motive*, (or in any case *against* the *strongest* Motive,) would, I think, impeach either the discernment, or the candour, of an advocate of *Free Will*.

It certainly is not my object to engage, at length, in the question concerning philosophical liberty, my business being only to point at the Mind's *Motivity*, as a thing which I suppose *not* of the nature of the *necessary re-action* of *Bodies.*——I must however confess, that the influence of Motives being undeniable, I am surprised to observe our liberty generally attempted to be defended on a contrary supposition; whilst the *nature* of Motives themselves, does not appear to claim that attention which I think it demands of us.

Are Motives all of one nature and origin; and is the Mind the *mere sufferer* of them *all?*—Or, are they of *two* Species; and does the Mind itself *produce one Species* of them?

As the Necessarian *admits* that external circumstances do not carry the point, *unless with the disposition of the Mind itself*, I rather think this virtually allows the Mind to be *one Source* of Motives; which also, I feel, is just to Consciousness: and, if we must do *only* what *the disposition of our Mind obliges*, we may admit the *nominal Mechanism* of the Fact, without the least questioning our *philosophical* liberty, which is the only liberty in dispute.——The *origin* and *nature* of *Motives* appear to me important in this question, with which, however, I have here little to do; but must remark how hard it is to conceive that *any* Mind can *act*, (since an Act includes *design*,) whether to make a *mere Volition*, *or make a World*, without being induced by a *Motive*, and that, inevitably, the strongest present Motive. And if we are as *free as Conception* can *figure* of *any* Mind, what do we lack of Freedom?

This great stumbling-block of Philosophy seems to consist in our *presumptuous Conceptions* as to the *means* of *Prescience*; and, in our his hand, and perhaps tranquillizes his features. He may then be suffered to sleep six thousand times; and, moreover, to forget the injury, long, and often, during his waking hours, until, after a lapse of Twenty years he meet the cowardly aggressor unprotected, and then correct him.——In this case we see, the re-action, if it can be so called, takes place many *years* after the Action; and if *Minds* and *Motives* are both *merely* physical Things, it is a very wonderful Process.——It will hardly be said that the *Motive* to Action took place in the injured Man only when he saw his enemy in his Power. The *Motive was* wounded honour; it has certainly existed, at many intervals, from the beginning, and if the Man had seen his enemy every day, it would every day have urged all its force: yet the Act would never have taken place until the Man *willed* it, it being *withheld* by a check *not physical,* that is, *by prudence,* which is a *judgment.*

My object here is to shew, that the Mind, though physical in regard of its *Extension* and Processes, is not *materially so* in regard of its *Motivity.*——I contend not in this place to establish the *philosophical* liberty of Action; but to oppose any Hypothesis that *mere Brain,* or Body any how modified, can Act by the *same sort of Motivity* with that of the Mind.

It may indeed be conceived, that mental energy *might,* (by the pleasure of the Creator,) *inhere* the Brain; but, as its particles are liable to change, the ablest Materialists do not contend for any such *inherence.* They make *Mind* the *necessary result of cerebral Organization,* consequently, in plain speech deny any such Thing as Mind at all; therefore every sound argument against mere material agency in general, or against the agency of the *Brain* in *particular*, must operate against Materialism, or against *any Hypothesis of a transient unsubstantial Mind merely organic.*

SECT. III. VOLUNTARY AND INCONTINENT ACTS.

If there is but *one living Spring* in the Mind, (as all our Actions seem to indicate,) it will follow that though a *moral* distinction between *Actions* is very just, there can be no *philosophical* or *radical division* of them, into *voluntary* and *involuntary* Acts, seeing that they *all arise from one Source or Motivity*, and, that in all of them, alike, the Mind Acts under the influence of the *strongest present Interest.*

In a case of urgent external stimulus, there follows an instant repulse or recoil. We call the Motion involuntary, and *justly* hold it *no moral Act* meriting reward or punishment. It was without design and ignorant, *having intervened betwixt the possibility of resolve, and the Body that it moved.*——All this is granted; but the Motion was *nevertheless spontaneous* or by *Desire,* which will appear a Species of *Will,* and as truly an *exertion* of the Mind's *Motivity* as if it had been planned an hour before.——The rigid Fact was an *incontinent recoil,* under sudden pressure; and its *instantaneity* and *ignorance* make it inevitably a *blind* effort, which therefore passes as *instinctive*: but this must not lead us to suppose that there is in the Mind a *second* and *distinct* Spring, called Instinct.—It is obvious, that it is *the instantaneity*, and *ignorance*, of an *Act*, that *constitutes it involuntary*, or *innocent*; and, a single instant's design would make it rational. This being the *sole* difference, leaves no room to suppose more than *one Power* of Action; and I feel persuaded that an *incontinent* Act is *equally spontaneous* with a *voluntary* one. In either case, alike, we yield to the strongest impulse, though these impulses may be very different in both their *Origin*, and *nature*.

The *Pain* from a hot iron touching a Man's *back*, would be as truly a *Motive*, and would make him start with as much *radical Will*, as the *Fear* from a precipice suddenly seen *before his face*; though in the first case he would start *ignorantly*, as to consequences; and, in the last one he might start *rationally*, knowing *why*, and *how*, he did start.

The *moral* distinction between different Acts, being nevertheless highly proper, it appears only requisite, that in this inquiry I apply the term *incontinent, to all Acts usually termed involuntary*; because, strictly speaking (agreeably to the *Unity* of the Mind's *Motivity*) no Act *can be involuntary* in its origin.

It is obvious that the phrase *involuntary Act*, implies a contradiction; but what is here advanced is, that *unintentional Motions* of the Body, *proceeding* from the *Mind*, are *all* from the *same Spring* which produces *designed Motions*.

Automatic and *compulsory* Motions are excluded from present consideration, as these are *not Acts at all*, but mere *bodily* Motions, under *foreign* impulses, in which the Mind has no part.

SECT. IV. REASON AND INSTINCT ONE.

After having once endured the persuasion that the Mind is actuated by *Two distinct Powers*, I at length think there is nothing within us that answers the character of *Instinct*.

There is not in the Mind any *Spring* which *blindly* acts to *arrange* for our *future* Existence on Earth.———There is not in the Mind any *Spring* which *blindly* acts for our *present* good, *except* that *same Spring* which *rationally acts* for our future good.

Attention to what passes within, during an *incontinent* Act, leaves me no doubt, that I act therein from the *same Motivity* or *Spring* that I do in all cases.———Reason itself, any more than Instinct, is not a Faculty, but only a Mode in which the *Mind operates*. The Mind, itself, is an Agent, but none of Modes are *Agents*; or, if we chuse to call the Agent by the name *Reason*, because it is the *wisest mood*, then, *Reason* and *Instinct* are certainly *identified*, and are but different *names* for *one* single *Spring*, which operates differently under different circumstances.

Radically considered, it is as truly *reasonable* to *shrink* under *Pain*, as to *attend* to any interesting *Proposition*, or a string of Propositions; although, *actively* moving under Sensation is the humblest of rational *Acts*.———I must think it as *reasonably judged*, to draw back from the point of a weapon touching our Flesh, as to lean forward to catch a discourse upon *Science*. The evident design of our having Understanding, is to enable us to avoid Evil, and pursue good; and it doubtless shows itself as truly in *shunning present misery*, as in cultivating any art, however dignified by factitious estimation the good of which may be doubtful.——Farther, it is undeniable that we *suffer all Knowledge just as we suffer Pain*; which leaves little doubt that we move under both in the same way, and, that both Pain and Knowledge operate on *one Spring* when they, as occasion serves, produce their respective consequent Actions.

It is far from my intention to sink, or I might rather say raise, Reason into Instinct, and so confound them. I cannot find any such Thing as Instinct in the human Mind; or, if I must adopt Instinct, and deny Reason, I shall not dispute about a *term.*——It appears to me that Man has *no Motivity* but that which belongs to *Reason*; and the Motivity of Reason *acts from the beginning*, and in all possible subsequent cases; which it must do if we would have it to be an essential *endowment*; whilst, if it is essential, it should differ from Instinct of brute Animals, which belongs not to them, but is superadded to direct various *low degrees of Reason, which they also possess.* ——An instinctive Animal is not accountable, so far as instinctive; but a rational one justly may be so, exactly in the extent that his *reasoning* mood has *operated*, and no farther.—Thus all crimes must be enhanced by deliberation.

True *Instinct*, which is held so degrading to those guided by it, can, in *itself*, be *no essential* endowment of a finite Mind. It is only a manifestation of ineffable wisdom, the effects of which may every hour convince rational Man, that there exists a *living Power* infinitely *greater*, and *wiser*, than Reason or human Mind.

So very occult is this Subject, that great diversity of opinion has unavoidably arisen; but those who have thought *originally*, appear to be comparatively not many. Few are led to consult their own Feelings, *minutely*, especially before they have become *biassed* by opinions, which they were *prepared* to respect; and, indeed, without such initiation the thing itself appears presumptuous, rather than ingenious, and we are naturally deterred. All this I have felt, and still feel, but I have, however, been carried into it; and, after what little I have gathered of Opinions concerning human Instinct, or Instincts, I am left bound in the persuasion, that there is but *one* governing Power within us.

A *grosser* mechanism than that of the *Mind* may account for the *very earliest* effort to *suck*; and every subsequent effort may, perhaps, proceed from nothing short of the *rational Mode itself*, operating in the very same way that it ever does, *though with less Knowledge.*——Such, I am apt to think, is the humble beginning of the rational Acts of the Mind; which, by repetition, variety, and the growing strength of the Body, becomes daily more capable of its proper functions.

The impartial inquirer need care very little whether we apply the term *Reason*, or that of *Instinct*, to the governing Power, provided we do not destroy the *Unity* of the *Agent*, by supposing two distinct Powers; nor, destroy *Mind* itself, by supposing it no Real Being whatever.

SECT. V. REASON OCCASIONS PASSIONS AND DESIRES.

All *Passions* and *Desires* are *immediately occasioned* by *Judgments*; (as has been observed in treating on *Passion* as one of the *Modes* of our *Susceptibility*) and they must, therefore, be referred to the *Motivity* of the Mind as their *immediate Source*.

Passions differ from *Desires*; and the following appear to be some of the points of discrimination.——*Passions* are mere *Sufferings*; and have *no design*. They are *occasioned* by the *incontinent Action* of the Mind's *Motivity* upon the Mind itself, *consequent* upon any *Judgment* which *deeply interests* us; in other words, our *Judgments oblige* us to *exert* our *Motivity*, which produces our *intellectual Pleasures* and *Pains*, as inevitably, as *external impulses* produce our *Sensual Pleasures* and *Pains*.——But *Desires* are dispositions which arise in the Mind *in consequence of Passions*; and all Desires have *design*. We are *voluntary* in Desire, and must always ascribe to it *praise*, or *blame*.

If any one think it strange that the Mind cannot counteract those *incontinent intellectual impulses* which so often inflict Pain upon us, and sometimes prove our destruction, let us take notice whether the Mind evinces any other sort of procedure, or control, in those cases wherein the Evidence seems complete.——If a man sit resigned to suffer a most painful, delicate, and dangerous Operation; and is previously aware that the least motion of his Body under the Knife may prove fatal, I fancy he would scarce trust himself without being held—at any rate, no practitioner would chuse to trust his reputation to the result, so much is it beyond our Power to control, *totally*, the re-action of the *Motivity* of the *Mind*, when it is under extreme distress.

If a heroic Mind can repress the *incontinent re-actions* of its own *Motivity* under *intellectual* Passions, such as Fear, Grief, Love, &c.—we may be assured the same Mind could manifest heroism in repressing its re-action under the Knife: many instances of which are to be found in the history of mankind, though these are extraordinary cases.—It is enough to shew, here, that it is the *same Principle of Motivity*, that *re-acts* under *intellectual* Passions, and under Sensual distress.

The origin and nature of our Passions will be considered again in another Chapter, it being my wish to render this account as brief as possible.

CHAPTER III.

OF THE CO-OPERATION OF THE MIND WITH THE EXTERNAL WORLD.

SECT. I. CONSCIOUS AFFECTIONS.

THE *particular* manner in which the Mind acquires, connects, and enlarges its Ideas, is not an object of this inquiry.——It is sufficient for my purpose to notice, that their earliest occasions are *Nervous impulses*; and the conscious manner of their *first accession* has been made evident by the writings of Mr. Locke.——My object is to examine the phenomena of *Consciousness*, in order to shew that they are produced by *Motions*; consequently, that there is a proper *physical connection* between Body and Mind.

When we consider the *conscious agitations* of the Mind, we find them consist of *Affections*, *occasioned* by impulses, conveyed by our Senses, from external Bodies: and, of *other Affections*, which *correspond* and *combine* with the *former*; though the nature of the latter is no otherwise known, than that they *arise within* the Mind, *or somehow proceed from it, as from a Source.*

However the *two Species* of Conscious *Sufferings* may differ in *origin*, and in *Feeling*; both are, unquestionably, *Affections* of *one Percipient*, and *both* equally liable to be re-felt in the Process of *Memory*.——In treating upon Mind, a *general term* is requisite to include *both* Species of Affections, and signify, *indefinitely*, *any* instance of *Consciousness*.

The word Idea, used in the extensive import given to it by Mr. Locke, seems fully to answer this purpose; and, as he clearly expressed that import, I am not aware that his enlarged signification ought to have led to any evil consequence.——The very circumstance of his indiscriminate application of the term to *all Thoughts* whatever, appears additional proof of what I have already argued, that, notwithstanding any unguarded expressions, he never supposed an Idea to be an "*Image*," in the Mind.——The truth is, that so far from any blame attaching to Locke, the error lies with those who define *Ideas* to be "*relicts*," of Sensations, thereby meaning *grosser Things* than Notions; whilst Locke, on the contrary, held them to be, *all alike*, *nothing* but *Thoughts*, or *Sufferings occasioned by* Motions.——And it is very remarkable, that after clamour has diverted itself during a Century with his supposed error, the most distinguished writer of the present day has adopted the same extensive import of the term, with the expressed purpose of destroying those very distinctions, which Locke has been so blamed for destroying ——I find it necessary here to remark, that in the long extract from Dr. Reid, furnished in Note B. of the Philosophical Essays, it is said, "Mr. Locke, who uses the word Idea so very frequently, tells us, "that he means the same thing by it as is commonly meant by "*species or phantasm.*"——Now I feel assured that neither Dr. Reid nor Professor Stewart intended to curtail the meaning of Locke; but his text is, "I have used it (*Idea*) to express whatever is meant by "—*Phantasm*—*Notion*—*Species*, or whatever it is which the *Mind* "can be employed about in thinking."——Thus by the word *Notion;* and, farther, by placing it *expressively between* the two words, *Phantasm* and *Species*, I think he evinced the very same intention which Professor Stewart has so judiciously adopted, when he says "I "generally couple it (*Idea*) with some synonimous word, *such as* "*thought*, or *notion*, so as to exclude completely all the theoretical "doctrines usually implied in it."

I have felt it important to the subject, to offer this explanation, which I respectfully submit to the candid consideration of those interested; but in my present purpose, and to get upon clear ground, I have adopted the term *Affection*, to signify, indefinitely, *any* instance of Consciousness whatever; and Conscious Affections naturally divide themselves into *two Clauses.*——These are

Primary Affections, or *Sensations*,
and
Consequent Affections, or *mere* intellectual Processes.

If the term *Affection* requires to be defended, I take it to signify *Alteration*; and intend by it, *any Feeling* which is a *Change*. Thus I would say, a Man is changed, altered, or affected, as to his *state* of Mind.——Now our cool *assent* to a Proposition; our discernment of sameness or difference in two Ideas; or, our successive *steps of Me-*

mory, prove as *truly* an *altered state of Mind*, or, in other words, we are as *truly*, though not as extensively, *affected* by it, as by the most violent *Pain*, or *Passion*; and as the term *Affection* has not, I believe, been *unalterably* appropriated in the study of Mind, it may probably be suffered to serve the purpose here intended.

SECT. II. FLEXIBILITY OF THE MIND.

I have already, from various considerations, *supposed*, that *Motion* is the *sole* immediate occasion of all *Knowledge*, or *Change*, *in the Mind*.

During *vigilance* our conscious *Affections* are *continually* going on; and, in ordinary we find *several* of them *present*, that is, co-existing or *synchronous*; but their *number* and *tones* are ever *varying*. ———Some are continually giving way to *others* which succeed them, each *differing without end*, insomuch that, however strange it may appear, it is probable, (if we could ascertain the Fact with *strict accuracy*) that we shall never have the *like company* of Feelings, (that is the like total *complex Feeling*,) in the Mind a *second time* so long as we live.

Many Affections, even complex ones, may return in what we may *call* their *identity* of *Feeling*, but in general we are *sensible* that these recur with some *addition*, *diminution*, or *alteration*, of the aggregate Affection; and it may be shown that there must be at least a minute *difference*.

As a proof that this is the case when we do *not heed* the difference, I may remark, that *Memory* (which is one of the most frequent complex intellectual affections we can have, and most likely to recur in exact similitude,) is subject to great alteration; and, at least, is *continually approaching to obliteration*. It *must* follow, that every succeeding *remembrance* of a thing *differs from every preceding* remembrance, however *minute* this *difference* may be.

Whilst we have an internal conviction of continual *Conscious* changes, we have collateral evidence that the *external impulses*, which occasion *many* of our Feelings, are also continually changing; and in these cases, at least, we are obliged to suppose that *Feeling is occasioned by Motion*.

The *multifarious varieties* of nervous Affections, the continual *variation* of the Sun's altitude, the changes of the atmosphere, and the changes of *temperature* in external *gross* Bodies, are obvious reasons why no *one* of the external Senses may *stimulate* the Mind twice in *precisely the same* way, even in *two successive minutes*; (*rigidly speaking*) and still more so why *all our Senses, taken together*, cannot give a *similar complex stimulus* twice over.

Agreeably with this we are *conscious*, that no object continues to appear of the same Colour under sensible change of light, *however small*; and the like holds good of *Sounds*, and throughout all our sensual *Feelings*; insomuch that we should feel a different *shock* from a *moist*, or a *cold* stick, from that we should receive from a *dry* or a *hot* one, when urged by the *same external force*; and a horse, a hat, a shoe, or a tooth-pick, may, *under varied, circumstances*, inflict a different sort of Feeling every time we use it.

The causes of *continual change* are *multiplied* when we necessarily take into this very *complex* account, that the irritability of the nervous system must be *continually varying* with the state of health, of secretion, Motion, Passion, age, &c.—and when all these several causes of change are considered operating *together*; I think it appears extremely probable that the Mind, (considered as suffering external impulses) *may never be twice in precisely a similar physical complex state during life;* whilst we find its *Conscious* estate not more fixed than the physical.

This serves at once to shew *the exquisite Conscious* and *physical flexibility* of the Mind; and, the exact *apposition* of *Conscious* with *physical* changes leaves no room to doubt of the intimate connection between Mind and Body.

SECT. III PARTITION OF THE SOURCES OF AFFECTIONS.

The remarkable circumstance that conscious Affections are from *two opposite Sources* (the one sort arising from external impulses, and the other *internally*, in regard to the Mind) is important to the View here taken of the subject. If the terms *external* and *internal* convey any meaning, they are *relative* terms, and imply the Existence of *some mental boundary*, (some Partition,) which *divides external from internal.*

Affections from *external* impulses are admitted to be the produce of *physical* Mechanism.——Mere intellectual Affections *co-operate* and combine with those we suffer from external impulses.——The two opposite *Sources* of Consciousness being considered, with a due regard to the Speculation of an *extended Mind*, leads me to suppose *some impenetrable Partition* which always supports the relations of external and internal. The popular, and indeed the universal usage of these expressions, may not afford any strength to the argument; but, at least, it should not surprise us to find, that in speaking as we feel, we speak with truth.

SECT. IV. PLAY OF AFFECTIONS.

If we attend to Processes we shall perceive the Mind usually suffering *many* co-existing or *synchronous* Affections, (including both Species) which are so many *absolute intelligences; to each* of which is *apposited* a degree *of Interest*.

The *extent* of Interest may be called *quantity*, by which I mean the *amount of Pleasure*, or *Pain*, contained in all, or any, of our *present Affections* at any *given moment* of Time.——This *quantity* may be made up by *Interests of several weak* Affections, (both sensual and intellectual,) or may be confined to *a few strong ones*. Nay, the whole *sum* of *Interest* which the Mind *can take*, at any *one time*, may be conveyed by *a single Affection*, to the *exclusion* of all others.

Let a Man cast his Eyes, *lightly*, upon a stall full of *various* fruits, or flowers,—a *Toyshop*,—or any *numerous* set of Objects,—and he shall *instantly sustain* a *number* of *synchronous Sensations* of *Colour only*. But, besides his Eyes, he has *four other external Senses*, *all open* at the *same time* to receive Affections; and, likewise, his *intel-*

lectual trains of Ideas.——Some of these *Senses may*, doubtless, be impressed *synchronously* with his Eyes, especially the Senses of *Hearing* and *Touch*; and it is necessary, only, that none of these claim his *partial attention*; but, that he *attend* to, and embrace, *the whole* with nearly *equal Interest*.

In the ordinary or relaxed state of the Mind, the *number* of *synchronous Affections* is *much greater* (though the *quantity* of *Interest is less*,) than the Mind entertains in *urgent* cases; because, as the *quantity of Interest increases*, experience shews us, the *number of present Affections must diminish*: that is, in proportion as we get *deeply interested* by *one* Affection, or by *a few* Affections, we either *suddenly lose all the weaker*; or, *we lessen and gradually lose*, *all the weaker*; and this with the greater certainty, and extent, if the *stronger* Affections are of an *imperious Interest*.

SECT. V. LAW OF INTEREST IN AFFECTIONS.

The *Conscious* capacity of the Mind, though great, is *limited*; and, if it become *fully occupied by Interests*, it must then *reject all increase* of *Feeling*.

If the Mind become fully occupied by several moderate Affections, of *different* degrees of *Interest*; and yet subject to *another* one, of *greater Interest*, this stronger Affection (of whatever kind) will occasion the *weaker synchronous Affections to lessen*, *each in proportion to its weakness*; and, if the *strongest* Affection be yet *gradually* augmented, it will occasion the expulsion of the *weaker* Affections, *one* *after another*, (the *weakest* always going *first*,) until the Mind be left strained to extremity by a *single imperious Feeling*.

The last mentioned Process having frequently claimed my attention, I am brought to think it takes place under *a great Law of our Nature*; which Law governs not only all present or *synchronous Affections*, but extends *to control all* such as may, at any time, *press for admittance*.——After tracing it *extensively*, it now appears to me universally constant, though it does not seem ever to have claimed the attention of any other person, *in the same light*: and the *Hypothesis* which I have drawn, (as developed in Chapter V.) *if* it shall be found properly supported, may, perhaps, tend to place the subject in an original point of view.

That strong conscious Affections *do overcome weak ones*, and in many cases render us unconscious of them, is so far from being new, that *no person is ignorant of it*; but I think this has *never been investigated, as applicable* to the present Subject; nor shewn to be a Process of *an universal Law of the Mind*, which operates through *every variety and gradation of Consciousness*. A law which *minutely embraces every difference* of *Interest*, and which never sleeps whilst we wake.——All this, however, I think it will be found to do; and it here serves for the *basis of a Superstructure, which must certainly fall if it fails*.

SECT. VI. NATURE AND POWER OF INTEREST.

The operation, and extent, of the Law of Interest, I think, only requires to be pointed out, to be acknowledged: I shall therefore somewhat enlarge concerning it.

An *extreme occupancy* of the *Mind*, may take place from *any one* of a great variety of single Affections; as one instance of which, I may mention *sensual Pain*, though the Interest of *mere intellectual* Pain *may* be *equally strong*.

The *gradual augmentation of sensual Pain* will be found to occasion the *expulsion of weaker* Affections, (in the *order* of their *weakness*,) until *no* Consciousness remain in the Mind, except that of Pain and a Desire for ease: or *possibly*, no Consciousness except of Pain only.

Again, if from a state of *sensual Agony* the Mind be *gradually relaxed*, we shall then have it gathering back Affections of *ordinary* Interest, (if their *occasions* be present,) and shall observe, that *they return* in the precise *reverse order* of their departure. That is to say, in such case, Affections of *strongest pressing Interest*, (if many be pressing,) will gain admittance first; and so on, until, by the time that Pain is wholly removed, the Mind shall become *capable* of *resuming a large synchronous group* of the most *trivial* Affections.

It is proper to remark, that all this will happen without any *necessary* or exclusive *preference* of *Nervous force*; because intellectual forces have *equal claims*, and can equally overpower the sensual.—Mere intellectual Interest has no *necessary* inferiority to sensual Interest.———Fear, or any other Passion, arising from the *delicate Vibration* of a *Man's Optic Nerve*, shall instantly occasion the Mind to expel an hundred other Affections, and strong *sensual* Pain among the rest, if it had been present.—It may indeed more frequently appear that Nervous Pain is the most imperious monitor; but innumerable cases shew the contrary; and those, in particular, who have happened to witness the tortures which enthusiasts of different Countries *voluntarily* inflict upon *themselves*, and suffer with *complaisance*, will never dispute this position.

SECT. VII. WEAK INTERESTS.

During the ordinary or lax state of our Minds we do not perceive the *operation* of the *Law*. On the contrary, owing to the Mind's *flexible capacity*, the Succession of Affections appears *merely accidental* and *playful*, as to *number* and *relative force;* the *stronger ones* not seeming to interfere with the weaker.———It is not until the Mind *begins* to be *considerably* occupied by Interest, that we discern the effect, which extends alike to both Classes of Affections; and the more the Mind approaches to *extreme* occupancy or *distress*, the more strikingly, (though not the more certainly,) we perceive the display of that *government*, under which Affections, of all kinds, *enter* the Mind, remain in it, or are *expelled* it, (with infallible certainty, and mechanical gradation,) in the *Order* of their conscious *strength*, or conscious *weakness*.

SECT. VIII. ACCIDENTAL AND LEGAL CASES OF EXPULSION.

To shew the unlimited *Power*, and *extent*, of the Law of *Interest*, —we need only refer to the known expulsions of various Affections, produced by *Heroism*, by *Cowardice*, by *sensual Pain*, and by *intellectual Passion of any* sort, the instances of which are numberless. ———*Either* of these, being *present*, may root out *every weaker* tenant of the Mind; and this is so universally known, that it only remains for me to shew, that the same Law operates, also, in the *finest possible gradations*, down to the most evanescent state of Consciousness, wherein we cannot measure its gradual steps.

I have already said, that in the *lax* state of the Mind the process *usually escapes detection*; and it is obvious that if we were to endeavour to trace *every step* whereby a *company* of *frivolous* Affections has been expelled, we have no scale wherewith to *measure* their *respective Interests*.—Whilst the *Susceptibility* of the Mind is too delicate, and too much at the *mercy of a thousand Accidents*, to admit our *detecting each* individual Affection in its entrance or exit; and all this, especially, if the group be *numerous*, and *nearly* of *equal Interests*.

If any sudden impulse affect us (even though but moderately,) the common result is, that several *light* Affections *start off at once*; and here their flight may be either *accidental*, or what I shall call *legal*, and it is proper to distinguish between these two cases.

If a poor hungry Boy cast his Eyes toward the enticing variety of a Confectioner, and another wantonly twitch his elbow, the first will probably turn round, *and thus expel a group of interesting sensual Affections*: nay farther, he may, for a *moment exclude* also, not only the *Memory of these Objects*, but even the *Uneasiness* of *Hunger*, and its *Desire* for *delicacies*.

In the *first* part of this supposed case the *expulsion* of the *visual* Affections is *purely accidental*; because, by the Boy *turning round*, they are put out of the line of his Vision, consequently *beyond the Law*, which it is plain cannot operate except upon *present* and *pressing* objects.———But the *Memory* of these Sensations, and the *Uneasiness* of Hunger are *legally*, (though abruptly,) *expelled*, they being driven out by the painful *Interest*, of *chagrin* or *displeasure*, at being turned, by *impertinence*, from his Object.

But again, if this poor Boy be suffered to *feast* his *Eyes*, until he *gradually*, and at length *completely*, lose a *prior* Consciousness of several bodily ailments, such as that he is *cold*, *lacerated*, *wet*, and *weary*:—if, also, he become *gradually* insensible to various impulses from Objects in the street, and forget that he lingers on his errand, under *certainty* of being accountable; we have, here, the *regular progressive* operation, step by step, of the *Law of Interest*. Under this Law the Boy's *augmenting Uneasiness* and Desire for delicate food, first *lessens*, and, at length, *obliterates* the conscious impressions of the several *weaker Interests* which are, nevertheless, still urging their considerable *respective forces*.

There is a puerility in this case, which may perhaps offend; but, though much fitter ones might be imagined, it is not without some fitness.——The Boy's Mind must be supposed as nearly in what is called a State of Nature, as can be found in our Country; and the *stronger Interest* which here expels the *weaker* ones, is not however an imperious or rare occurrence, such as Torture, or Terror; on the contrary, it is such a familiar case as every Town and Street affords: and we must (however reluctant) confess, that such *puerile Interests* are quite strong enough to occasion not only poor *Boys*, but also Men and Women to forget themselves, and lose Sight of Interests which might be expected to have more weight.

It is certainly true, that by far the most frequent occurrence in life, is that of *sudden* or *accidental* expulsion, arising from Changes in the *Motions* of our Bodies, or Organs; and, from the continual *Changes* of external things, as well as of our *own Thoughts* within. Hence, in most cases, a group of *light* Affections is sent out of the Mind *at once*, without the least difference in time; and, in such cases the *gradual* operation of the Law of Interested succession *never can become manifest*; this may be the reason why it has, hitherto, escaped being taken up in the light in which I now hold it; but it is, however, easy to trace the Law through every *sensible* difference in conscious Affections, *when once our notice is attracted in this direction.*

SECT. IX. GRADUAL PROCESS OF THE LAW OF INTEREST.

What I would here particularly insist is, that an Interest in *one* Object, does *not necessarily* drive out the Consciousness or Interest of another, or others; but, that it *either lessens*, or *else* drives out, the others, according as the several Interests are less or more different in strength.

If a Man, during continued Pain, read an interesting author, or think of some good in *store*, this will certainly solace him; but, as certainly, will not *drive away* the Pain. It will merely *lessen* his *Consciousness* of it. But if the Pain be little, and the author very interesting, the Man may indeed loss all Consciousness of Pain at many intervals.

A Man *will feel* Pain, but certainly a *lesser* Pain, if wounded in rescuing a parent, a child, or any one whom he dearly loves. And this will hold, *generally*, in all cases of bodily hurt received in any Act which we *highly* approve.

I contend, that Affections in the Mind, are not like buckets in a Well, that when one is in, the other must be out. The Mind is more to be compared to a Temple with many doors: and *many* votaries *may* be present at *once*, though the assembly is *continually changing*.

If a Man walk the streets, *light, careless*, and *susceptible*, every passing object shall furnish him *groups* of Affections of *little* Interest; but if he see a *harsh creditor*, a *deadly enemy*, or a *shocking disaster*; or if any *sudden Pain invade*, then, the *lighter* classes of Objects will *cease to affect him*. He may *still* notice Objects for all useful purposes, and recognise acquaintance if he meet them; yet there are *hundreds* of *trivial impulses*, which *before reached* his *Mind*, and that now press on the sensual Organs without effecting any *Consciousness*.

But, if this Pain or Care *augment*, the Man must grow *less* and *less* *conscious* of the Characters, Colours, Figures, Motions, Sounds, &c. to which his *Organs* are *exposed*; and, in the same proportion *lose* Consciousness of all his intellectual Affections, *except that*, or *those*, which *imperiously hold possession*. This process will have reached its limit when *any one Pain*, or *Passion*, is so powerful, as for the moment to expel, and exclude, all other intelligences, as happens during moments of *sudden Agony* of *any* sort, either *Sensual* or *Intellectual*.

Here the *gradual* operation of the *Law* is perceived by its *repulsion* through a great *variety* of *Feelings*; and we can have no doubt of its operation through every *gradation*, down to Affections of the most minute Interest or possible Consciousness. At the same time it is obvious, that it *repels* and *expels* Affections in precisely the same way.

Let a person in gaiety of Mind enter a brilliant Theatre, and he shall sustain a *numerous group* of sensual Affections playfully, along with a Succession of light *mere* Intellectual Thoughts. But if either *sensual* or *intellectual Pain* begin to annoy him, and *gradually increase* its *Interest*, the *number* of *synchronous Affections* will *gradually decrease;* and this process may be carried so far, that the patient shall, at length, lose not only *Memory* of the past, and *Interest* in the present; but shall become *insensible* to all he would otherwise see and hear; and, in a state of Agony, be carried forth; ignorant of the means, and the persons, employed to convey him.

In the *gradual* steps of such a Process we should find, that the *first* set of *intelligences* which would fly off would consist of frivolous visual, and auditory ones. These probably, being so very *minute*, would disappear *at once*, and leave the Mind moderately occupied by a *few* visual, auditory, and other intelligences, of some Interest; such as a fine Woman, or a sweet singer. Here, on the increase of Pain it would be found, that *interesting* Affections do not fly off and disappear *at once, like the first frivolous set*: on the contrary, they would still maintain their ground, as *Intelligences*; but their *Interests* would *grow less*, and *as Pain increases* they must become still less observed, until at length they *gradually disappear*, the *strongest* of them being the *last* that goes.

During *great* Pain, yet short of *Agony*, the sweetest singer, or the finest face, may be perceived without the least *pleasing* Interest; but *either* may be *merely perceived* until we are on the verge of *extremity*: and here we are to recollect, that *Agony*, or *extremity*, (which *alone* is capable of banishing ordinary Sense,) is a state which *rarely* occurs, and *never can last long*. It is no impeachment of the Law of Interest that a Man may be collected during the amputation of a limb; and that another may find indolence on the rack; because, it is *undeniable* that the *Nerves can* convey moments of Torture *so extreme*, as to banish both *Sense* and *Reason*: and *Fear*, or other *Passion, can do as much.*

If a very *susceptible* Man unexpectedly enter a room, wherein is a Woman whom he loves with *sentiment* and *diffidence*, he shall be *confused*, and *scarce flexible* to ordinary converse with the company; but, if agonizing chance place him next his earthly divinity, he shall become a *Spectacle* of *compassion*, and lose not only *Memory* or *coherence*, but appetite itself, and Power of articulation.——He may *essay* to talk, but shall fail; and prove the laughing stock of those who have *not half his Intellect.*

Men, in the ardour of fight, or of field sports, often receive considerable injury, without being sensible of it, until the business be at an end. So much does *intellectual* Interest occasionally *overcome sensual* Interest.

Men closely pursued by apparent destruction of any sort, do often evince insensibility to *sensual pressing impulses*, in a degree incredible to those who never experienced the like.

In short, it is impossible to condescend upon *any case of Conscious occupancy*, ordinary or extraordinary, in which the Law of Interest is not manifested, provided we attend *strictly* to the truth of the Process, and do not suffer ourselves to be *deceived* by a *superficial* and *false* view of it; which, however, is very liable to happen in many cases.

SECT. X. EXTRAORDINARY INTERESTS.

It is no contradiction of the Law, that persons are known, sometimes, in cases which *we* may think awfully serious, yet occupied by *Interests* of the most *contemptible general* estimation, insomuch as to overlook what other men wisely judge ought to affect them beyond every other.

I once saw a malefactor kick off his shoes among the populace, just before he was suspended (a case not very rare); and he then met his fate with a sort of triumph.——Here there can be no doubt that his *Uneasiness* lest he should be thought to flinch, or his desire to shew *game* in the Eyes of the mob, *lessened*, if it did not *expel*, what little degree of *Fear* he would have felt in rushing into the presence of his Creator: and, to die unsubdued was the *strongest Interest* in his depraved Mind.

This instance may serve, in the room of a thousand, to shew us that the *strongest Interest* in the Mind, in any situation of life, may be very *different* from what a spectator might *expect;* and the Heroes of Vice thus afford the strongest proofs (though melancholy proofs) of the *universality* of the *Law of Interest.*

A man may sport a *friend,* or a *kingdom,* for a *pun;* and may *jest* in *pain,* or *smile* in *death;* but each of these *Acts* is the result of a *momentary Interest stronger* than *any other then in his Mind:* and each, for the *moment, lessens* other present Interests, so as to *admit the Act,* though it need not *expel all* the Interests which it overbalances.

CHAPTER IV.

OF THE CAPACITY OF THE MIND FOR SYNCHRONOUS PERCEPTIONS.

SECT. I. AN IDEA IS A GROUP OF IDEAS.

So far is the Law of *synchronous* and successive *Interests* from having yet attracted the notice of the world, that an opinion has, indeed, been advanced in our own time, by a respectable writer, that the Mind *cannot perceive more than one Object* or *Idea, at a time*. And though this position has already been opposed by others, (and I believe opinions are sufficiently against it,) yet those who hold for *synchronous* Perceptions do not carry their views to any thing like the *extent* of the Fact, nor in the least notice *the order of their government*.

So much is this the case, that I deem it necessary to examine the position which I have advanced, lest there may be others who think that the Mind cannot perceive more than *one object* or *Idea* at a time, though nothing appears to me more easy, for any one, than to *perceive* the *contrary*.

If, indeed, the Mind's Perception were so limited, how inflexible a Being must it appear; and how little adapted to admit that *playfulness* of *Sensations*, and *intellectual Affections*, which seem in our *gaiest* and happiest moments to run riot, uncontroled.———A Mind so *exquisitely* constituted that (it can be easily proved) may *never* be *twice* either in a similar *physical*, or *conscious*, *complex state* during life, can scarcely be thought so *obdurate* as to admit only *one* impulse at a time.———But, what is more, a *complex Idea*, (letting alone a *set* of *complex* Ideas,) becomes *impossible* in a Mind which can perceive only one simple Idea at a time.—And, if *one Idea* is *not* supposed *one* simple *Idea*, it should be specified *how many* Ideas are allowed to make *one* such Idea or object as is supposed to occupy the *whole* Mind.

The *Succession* of *Thoughts* is confessedly most *rapid*: and the Succession of *one complex Idea* or *Affection* at a time might often serve our *requisite* purpose. It is true that in this way is made up that *useful chain* commonly called the train of our Thoughts; such as *Horse*, *Cart*, *Commerce*, *Civilization*: each brought in by its preceding Idea. But *each* of *these is much more than one Idea*, for *each* is a *group* of Ideas or Objects; and even such a group of Ideas, (of one Sense,) *does not*, in the least, *express* the possible *capacity* of the Mind for entertaining *synchronous* or co-existing Affections.

I apprehend the term *Idea* or *Object* to be in this case, a very *vague* expression, which, if it be admissible in any other import, is not so in such a view of the subject as I am now taking; but I shall here submit the Mind to such tests as I think must establish the fact.

SECT. II. PROOF OF SYNCHRONOUS VISION.

Our capacity for *rapidity* of *successive visual Sensations* appears to have been nearly ascertained by an experiment of Dr. Herschel; and, at the utmost, does not exceed 320 *Sensations* in a *second of time*. But, if a Man open his Eyes upon a basket full of *bird seeds*, or a plate of *fish roe*, he may receive *Sensations* from *many hundred separate particles* at the *same instant*, *that is synchronously*.——And, he may *perceive* an *Army*, or a *Landscape*, in precisely the *same* way, (though he *cannot so examine* each individual of the group;) because, (every body knows,) a Battalion of *Soldiers* at the distance of a few hundred yards, does not present a greater Vision than so many *Peas near the eye.*

Thus, even if the Mind could be supposed *deceived*, by *Feeling* those Sensations *as synchronous*, which are in reality *successive*, we here find the *possible progress* of Vision *not near* sufficiently rapid, to run, in *Succession*, over many hundred objects, *(one at a time,)* and complete its task in the lapse of a *conscious now* or *instant*, during which, we are *not the least sensible of any Succession* whatever.

It is evident, from the experiment of Dr. Herschel, that if the Eye could be supposed to travel over a basket of Seeds with greater rapidity than at the rate of 320 Seeds in a *Second* of Time, the *Seeds could not be perceived in separate* particles, but only *continuously*, or as *one uniform Surface; and we never should be able, by such means, to discover that it is a heap of Seeds*, nor to arrive at *any such visual intelligence.*

Successive Vision of Objects with greater rapidity than 320 in a Second, would occasion a dish full of *Peas*, or *Gooseberries*, to *appear* as if covered by a *green Cloth*.—And, in a word, *all* Objects which *should appear* in *diversity*, must, at that rate, appear *in Unity*, or as *one continued uniform Superficies*.

Upon the same Principle, if twenty musical instruments happen to *strike truly at once*, they would not *affect our Minds synchronously*, because, by the reasoning I oppose, it would be necessary that they act *(truly,)* in *Succession*, to make us hear them (as *we think*,) *synchronously*.

Such a mode of Perception would lead to endless mistakes in life; but, we may safely conclude, that in perceiving synchronously *the Senses do not travel* in the least: on the contrary we can perceive a large *group* of visual Sensations at any instant of time.

On this question we must never overlook, that when we *see* Objects in *Succession* as rapidly *as the Eye can take*, (which may be 320 in a Second,) we are *fully sensible of Succession*; but when we receive *many millions* of points of Colour, *synchronously*, from a yard of printed Cloth *(which is the rigid fact,)* we have *no Sense of Succession* at all.

As it is certain that the Eye embraces impulses which occasion *Millions* of *points* of *Colour at once*, it would be necessary to shew that the Mind *travels* over *all* those *Millions* in *Succession*, in order to see them *apparently* at once; or else, to shew *how many* single points are the standard which amounts to *one* Idea or Object.——And, if one Idea be supposed to contain *one* Hundred, or one *Million*, of Points, it should be assigned, (at a given distance,) how many of these Points are the measure of any given *real magnitude*.

But, by the reasoning opposed, *no man ever saw any Object* larger than one sensible Point *at once;* because it becomes obvious, (if that reasoning is just) that when the Eye has travelled over a Church (suppose it a mile distant) till we get to the *Point* of the *spire*, we only find out it is a Church by *remembering past Visions.*——At this rate what we take for Vision would be no other than some *Millions* of *successive Ideas, tacked, by Memory,* to *one minute particle of real Vision;* which I think will scarce be defended.

Independent of these Facts I may observe, that unless the Mind is capable of Feeling *several Synchronous impressions*, we have *no certain* evidence of the Existence of *Extension; for* there *might*, in fact, be as much *deception* in our *successive Visions*, or *successive* Touches, of *sensible Points* of Extension, as there is when an *ignited* Stick *deceives* us. Indeed I may insist (as remarked in Chap. III. of the Discussion) that our only *undoubted* proof of Extension, at all, is our *Consciousness* of *several co-existent impulses*, from *parts* of external *Objects not in* sensible *Motion* with regard to us, or to themselves. ———Without such proof indeed, I, and others, might still believe that Bodies are extended; but, *all* who are given to *Scepticism* may assuredly ground objection, *if* such an opening be left them, as the denial of our capacity for *co-existing* Perceptions.

The capability of Sight to admit synchronous Ideas is thus evident; and whilst the Eyes are *lightly* occupied by many Objects, the *other four* external Senses are open to the assaults of their *proper impulses*, and *what* should prevent some of these from reaching the *Percipient?* ——A *partial* Interest in *a few*, or in *one* of them, is the only occasion that can prevent the others; but in this case the man *is not* to be interested *partially*: he is only to keep open all the doors of his Perception, and try if he can *possibly perceive more* than one Idea at a time; and I think I may trust to his success.

SECT. III. SYNCHRONOUS IDEAS ARE OFTEN NUMEROUS.

It is well known that a rapid consecution of the primary Colours destroys all discrimination of *diversity* of Colour, and must thereby destroy all discrimination of the diversity of several *Objects* thus *variously* Coloured. If, therefore, the Eye travel over Objects faster than a certain rate, they must all be confounded, or appear as one *sheet* of *White*, and no diversity of them could be thus discovered.

Besides these Facts, if Vision of Objects was not meant by Providence to be *synchronous*; or, if *successive* Vision is the *only Fact*, I may ask, *why is the optic Nerve expanded* to a *superficies* purposely to *receive* the *synchronous impressions* of *Millions* of *impulses*, such as we receive from a *Landscape*?

The truth seems to be, that it is *necessary* to our *convenience*, and even to our *safety*, that our *Senses* should *receive a large group* of Objects *synchronously*; though it is not necessary that we should *examine* them synchronously. And Providence has bountifully afforded us the requisite Power, without any superfluity of it.

Perhaps enough has been advanced to set this question at rest, and to establish, that the Mind is not like a *Well*, which can receive *only one* bucket at a time: but that it may be, rather, (however *improperly*) compared to a Theatre with *several doors*, *each* of *which can* *receive* a *number* of *comers at once;* and *all* the doors, taken *together*, give admittance, and exit, to a great *number* of *synchronous Objects*. ——*Whilst each* of the *three grosser* Senses are open to a *few*, the Sense of *Hearing* may receive *many;* and, at the same time, *Vision* can entertain *Millions*. There is no reason whatever to suppose that those which come in at one door *necessarily* give hinderance to those entering at the others.

When we are abroad, *gay*, *chearful*, *susceptible*, and bustling, the number of *present Objects* will be *very great*, though always playfully varying.

Darkness,—*Silence*,—*Pain*,—*Passion*,—and certain *other* general circumstances will, either of them, *reduce* the *number* of *synchronous* Affections to a *very few;* in some of which cases *Memory* will drag on its chain of *complex Things*, link by link; and we may, then, be *said*, *in some sort*, to perceive but *one Thing* at a time, though *each* of those Things be *really* a *group* of Ideas, and many of each group, by itself a group, insomuch that (*strictly* speaking,) *it* truly *requires Abstraction*, and is matter of *difficulty*, *for the mind to perceive only one Thing at a time.*

To *compare* two *visible* Objects, that are at *any distance* from *each other*, it is necessary to *examine* each, *alternately;* that is, to examine *one Thing at a time.* But *examining* and *comparing*, are quite *different Processes from merely perceiving.*———It appears of the highest utility to Man that he has a large field of Perception in *all* the Senses *at once*, with capacity to perceive their several respective Objects, *loosely*, at the *same* instant; although he has not Power to examine and compare them at once.

Both examining, and comparing, are *Acts* of the Mind, in which we exert *Attention*. And if those from whose position I dissent, mean, only, that we cannot *attend* to more than one Idea at a time, I agree with them.——But *mere Feeling* is *no Act*.—It is suffering only.

I do not argue to shew, *merely*, that the Mind can *perceive more* than *one*, *two*, or *three* things at once; but to establish, beyond doubt, that it may be struck at the *same* moment by a *considerable number* of *intelligences; every one of which may be complex*, and possess different degrees of *Interest*.

So far is the Mind from being limited to one Idea at a time, that, to form *any approaching* conception of its *capacity*, I think we must strain Imagination to conceive the *most extensive*, and *most diversified capability* of *synchronous*, as well as of *successive Affections*.

Mind appears, on the whole, a *Reality* of *perfect simplicity*, adapted to purposes of *infinite variety*.

What tongue can speak the Power of its Creator?

The Fact last under Consideration being one of very important consequence, I must attend to it in another View.

In the foregoing part of this Section I have combated a position which (I remarked) was *vaguely* expressed, when it asserted that we cannot perceive more than one "*Object*" at once.——But I have since adverted to a question in the Elements of the Philosophy of the Human Mind (argued in far more definite terms,)—whether the Mind *can perceive* a *complete visible Figure* at once?——On this question

Professor Stewart is first of opinion, "that the Mind does at one "and the same time perceive every point in the outline of the Ob- "ject, (provided the whole of it be painted on the Retina at the same "instant) for perception, like Consciousness, is an involuntary Act." —So far he appears to support the reasoning I have already advanced: but subsequently he says, "As no two points, however, of "the outline are in the same direction, every point, by itself, con- "stitutes just as distinct an Object of *attention* to the Mind, as if "it were separated by an interval of empty space from all the rest. "*If the doctrine therefore formerly stated be just*, it is impossible for "the Mind to attend to more than one of these points at once; and as "the perception of the figure of the Object, implies a Knowledge of "the relative situation of the different points with respect to each "other, we must conclude, that the perception of Figure by the Eye, "is the result of a number of different acts of attention."

Now, this doctrine, on which his *last* argument depends, is that held by a few, whom Professor Stewart inclines to sanction, who maintain, that the Mind cannot *attend* to more than "one thing at one 'and the same instant."—This doctrine, he candidly owns, has been controverted, even to contempt; and with that substantial caution becoming his high responsibility, he declines "to decide with confi- "dence;" acknowledging, that the decision against *Synchronous* Perception of visible Figure, "stands, or falls, with the supposition, "that the Mind can only *attend* to one thing at once."

But, as simple *Perception* of Sensation (which is a primary Suffering) is *a prior Fact* to that of *Attention*, I think the Philosophers herein opposed can never refer our manner of *Perception* to our Power of

Attention.———The *first* Fact to be proved, I decidedly think, is whether we can *Feel more than* one *Sensible* point of *Colour* at *once*:—and it will be an *after* question (or, *after Fact*) whether the Mind can *attend, at once,* to more than one of those points which it *perceives at once?*———*Attention* is an Act; but we must *suffer* the points of *Colour, in* the Mind, *before* we can perform this Act.

Now whilst I always agree, that we cannot *attend* to more than one point or portion of a visible Figure at once, I think it very clear that our *capacity* for *co-existent visual Perceptions* is quite independent of, and its exercise *prior to,* that of *Attention.*

Having thus argued that in *simple Feeling* we have no necessary exercise of Attention, I now beg the reader to revert to the arguments I have drawn from the experiment of Dr. Herschel, which I trust has enabled me to set the question at rest.———Here it matters not how *rapid* we may *suppose* the possible changes of the Mind.—It is sufficient that Dr. Herschel has demonstrated, that when the Visual Sense travels *faster* than 320 Sensations in a Second of Time, it *occasions total confusion* of Objects, or the *Feeling* of *continuity.* Whilst, at the same time we know, that we can see many more than 320 Mustard Seeds in a Second of time.

I conclude this with offering the following simple experiment.

Having made about 3,000 small Pin holes, as *close* as convenient, in a Piece of thick paper, I held it up to the Window, and found it display so many points of Light, every one of which was conspicuously *isolated* by the dark side of the paper.——Looking at the *whole* of the paper, and *avoiding* to *strain* the Eye, I saw (or *seemed* to *see*) *all the holes at once.*—But Dr. Herschel's experiment shews, that if I saw these in *Succession*, and that, faster than 320 in a Second, they must have *appeared* to me as *one continued surface* of light, *without any hole* at all.

Professor Stewart having in one clause decided in favour of Synchronous Perceptions, and still holding the balance, (though not quite evenly,) in his hand, the arguments herein advanced, are submitted with deference.

I must in fine remark, that though the Question put is, whether we can " perceive the *complete Figure* at once"—the arguments used by Professor Stewart, scientifically descend (as they *must of necessity do*) to whether we can perceive *two Sensible Points* of Colour at once:—and here it is obvious, that if it is shewn *possible* to *perceive two Pin holes* (however near each other) at the same time, my position is demonstrated as fully, as if we saw two thousand.—Now the *proof* of our seeing *many* holes *at once* is, their *appearing* to *be holes;* because, it is *proved* that if the Sight *travel* over them in *Succession*, with the *rapidity* supposed by the other party, the *many holes must* be *seemingly confounded* into *one Superficies* of *light*.

CHAPTER V.

OF THE PHYSICAL STRUCTURE OF THE MIND.

SECT. I. THE OCCASION OF THE HYPOTHESIS.

The various proofs of the *Extension* of the *Percipient*;——the demonstration of *physical connection*;——the certain Evidence of the great *Law of Interest*, which governs all *Conscious* Affections; ——and the consideration that conscious Affections, (though all governed by one Law,) arise from *two opposite Sources*;—— all these circumstances support an Hypothesis, that the Mind *is figured*, like a tangible Body: and one of these considerations, (that of the *Law* of *Interest*,) has suggested to my conception a *definite Shape* under which it possibly may operate.

This supposition (whatever be its fate,) has afforded me much innocent amusement, and beguiled me of melancholy reflections.—— Though I have suffered the pursuit of it to prey, too much, upon my health, it has made me considerable return in the way of pleasure;

and I hope I shall in no case regret my labour, provided it prove acquitted of any pernicious tendency.

Several years ago, on my perusal of Mr. Locke's Essay on Human Understanding, that passage wherein he likens the Succession of *Ideas*, to the *rotation* of *Figures* in a lanthorn, appeared to me a playful conceit, wherein a scientific Mind had descended to a *physical* simile of a *mental* Process; whilst he must have perceived that such simile was not only *vague*, but quite incapable of being extended.

Perhaps he would have considered the attempt ridiculous; but spite of all that learning or prejudice can do, this momentary sally proves how like some mental Processes are to physical Processes; insomuch, that the most acute human genius cannot help making such comparisons, however he may judge it prudent to conceal them.

I scarce need advise the profound reader, that when I say a *Mental* Process, I do not here mean a *Conscious* Process *merely*,— An *Idea* is a *Conscious* Fact; but a *Succession* of Ideas is a *chain* of Conscious Facts *mentally* connected.

Here I cannot avoid commenting on the tenor of language used in Treatises on the Mind, even by those authors who have been most studious to restrict their expressions.

I hardly know any writer on this subject who has not made use of terms that might suit a *river*, a *storehouse*, or a *piece of mechanism*; and then, with a marvellous injustice, *language* is always blamed as the defaulter, whilst we are conscious that in many cases it is *Conception* itself that is to blame.

I would rigidly demand of any one, who writes concerning a *Mind* which has *no relation* to *Place*, that he shall use *no term*, nor Conception, that bears any *relation to Place*; and then I shall think he writes consistently, whether truly or the contrary.

It is vain to say that language was not made for this subject.—A Man *may* use *physical language improperly*; but, in most cases, he is bound to *physical language no farther* than he is bound to physical *Conceptions*: therefore, independent of the *novelty*, it might be entertaining to try how far he can go without the use of such *degrading* Conceptions.

A Philosopher who advocates Non-extension, is as imperiously bound, as a Peasant, to believe, that his *Thoughts run* in his *animal System*; and no exertion can enable the one, more than the other, to believe that his *Reason* exists in his *Horse*, or in the *Moon*. ——And, if both were racked by the gout, the Philosopher would, perhaps, evince as little acquiescence as the Clown, on being reminded, upon *his own* principles, that *his Pain truly does not exist any where*.

I do not here intend to enter into matter of speculation; but may venture to assert, *practically*, that there is not a single advocate for Non-extension, but whose daily Language, Conceptions, Concerns, and Actions, *directly imply* the *locality* of his *Mind*: therefore I cannot conceive a more confessed inconsistency than for *him* to suppose, that his Mind is *no nearer* to his *Body*, than it is to the planet *Saturn*.

It is worthy of remark, that whilst Dr. Priestley (in ridicule of Immaterialism) affects to praise Mr. Baxter's argument of the Soul's having no relation to place, as the only consistent scheme of Immaterialism; we find him, notwithstanding, quote Mr. Baxter himself, as talking of the *Soul* being *confined* by the Body;——of the Soul being set at *liberty;*——of its indulging itself by *abandoning* the *Body* during Sleep; and *of other Spirits getting into its Place*, by which means he thinks we have Dreams.——Is it not wonderful, that he directly asserts the Soul's *locality* and change of place, as grossly as a Man would change his abode, and yet concludes that the Soul *does not exist any where*, or possess any *relation to place whatever.*——I would rather suppose, after Dr. Price, that Mr. Baxter could not have really held such conclusion; but *if he did*, his *arguments* and *conclusion together* form an *inconsistency* too gross to merit farther comment than to observe, that it ought to serve as a beacon, to warn those who will speculate upon a Mind which *exists no where.*——It is quite unnecessary to point out other instances of such inconsistency; though I imagine it might be traced to any length; insomuch, that it can be nothing short of the most inveterate *prejudice* for any one to maintain the *Hypothesis* of *Non-relation to place*, *until* he can find at least a *Conception* which will admit its *possibility*.

Here I turn to remark the very different and encouraging ground adopted by that Philosopher whose writings I have so often quoted; who, in acknowledging the "*intimate connexion*" between Body and Mind, shuts the door against the absurd consequences of the contrary supposition: and, if I may not call it a *virtual* acknowledgment of the *Extension of the Percipient*, I hardly know what *less* it is, since *Non-relation* to place is *essential* in the creed of Non-extension.

SECT. II. THE FOUNDATION OF THE HYPOTHESIS.

So completely is the Understanding *hoodwinked* by the *prejudice* of a *non-extended* Mind, that if, after proper search, it prove otherwise, we dare not venture to open our Eyes to perceive it. It happens, however, in regard to myself, (not having the advantage of early study,) that a *persuasion* of the Mind's *Extension* did soon overcome what little I had first imbibed on the subject; and being one day *struck* by a *similitude* which I, at first, viewed with no greater interest than I suppose Mr. Locke did his lanthorn, I however gave it a momentary consideration; and, in that moment, perceived what appeared to me an increasing claim to attention.

It has been already noticed, that I had repeatedly been struck by the Facts of *stronger Affections overcoming weaker ones*; and had come to observe, that such operations were extensive, and often gradual or regular. Now, my vague persuasion that the Mind must be in some way extended, led me at times (though *not a mechanist*) to view these Facts with a mechanical Eye; and to consider how such operations might *physically* be carried on. At length, the following conception occurred to me; at first imperfectly, but soon developing itself to form a *definite* Object, resulting from a series of *Facts* decribed in the following Propositions.

Prop. 1st.—If a Man take any *inflated flexible Ball* between his hands; and *press* it, on *all* sides, with the *ends* of his *ten divided* fingers, (*each* acting with a *different* degree of *force*) he shall find, that the *finger* which presses *strongest*, will make the *deepest Flexure* in the Ball; and all the *other fingers* will be *deep* in proportion, *each* to its *own* degree of *pressure*. And, if the Man *vary* the *pressure* (and also *increase* it) he shall observe, that on urging any *one* finger very *much*, the *Flexures* made by the *other fingers* will *begin* to *lessen*, until at length the *smallest Flexure will wholly disappear*, and *all the others in Succession, (the weakest or smallest continually going first)* although their *respective pressures are still acting* upon the Ball.———In other words, by *variously* applying the *pressures* upon *different* points of the Ball, it will follow with mechanical *precision*, that *strong forces affect*, *lessen*, and, *at length*, *obliterate* the impressions or *Flexures made by weaker forces*,—in a *similar Order* to what takes place in cases of *present* and *pressing external* Affections in the *Mind itself*.

Prop. 2d.—Again, if the different forces be still applied to the flexible Ball; and if the *strongest* pressing force be made to *relax gradually*, we shall then have the *weaker* forces *re-producing* the same *Flexures* which they had lately lost; and this *precisely* in the *reverse order* of their *departure*:—being in the very *same way* that weak *Sensual* Affections *reimpress the Mind* (if their impulses be present) on the *gradual* relaxation of *strong* Affections.

The *similarity* in the *Order* of these *Facts*, *as governed* on the *physical* Ball, to *the Order of Perceptions* governed in the *Mind*, is here so *correct*, *striking*, and *undeniable*, that I think it will be admitted without hesitation.

Prop. 3d.—The *similitude* is *not only correct*, but *already* appears *extensive*.———We may, however, quickly perceive it carried much farther; for if during the several pressures on the *exterior* of the *flexible inflated* Ball, we increase the inflation, (or else contrive other various *pressures* against its *interior Surface,*) then the whole *mixed group* of *Flexures* will still be subject to the same *Law* or Order, of *enlarging, lessening, coming,* and *going:*———exactly as happens with *both species* of *Affections* in the *Mind itself.*

This last Proposition would hold good, even if the *internal* pressures were of a *particular* nature like the external ones. But, it would appear to afford more complete similitude of Action if the *internal pressures* on the Ball were of an *obtuse, distending,* or more *general* nature than the external ones: and I shall have to argue the probability, (from a *series* of facts,) that they really *are so in the Mind itself.*

Concerning the juxtaposition here described between *Conscious* and *physical* changes, I request it may be observed there is *nothing Hypothetical.*—On the contrary, I advance the account as *Facts* (and rigid Facts), as to the *similarity* in *Order* (depending upon degree of force) in both Conscious and physical changes.———This remark I make, fully aware of the aptitude there exists to deal severely with all Hypotheses; to which I can have no objection if the scrutiny be conducted with truth and Candour.—And since I have from these Facts drawn an Hypothesis, I trust it will not be condemned simply for its *name;* but be allowed, unless it be shewn to be false.

Having held in contemplation the *physical* Processes above described, with such feeble consideration as I was enabled to afford them, and being convinced of the *similitude in mechanical effects,* the result was my determination to amuse myself by tracing the *Human*

Mind physically, as *a Reality possessing the nature* of a *flexible Spherule*, so far as I should find such Hypothesis supported by a correspondence of *conscious* and *physical Facts*.

A mere phantom of Imagination, it is true; but *having for its basis a Law of our Nature*, which I take to be as *certain and extensive*, as *any physical* Law whatever.

SECT. III. THE HYPOTHESIS.

The Human Mind is a flexible Spherule.

To this Hypothesis I intend to refer all the various *Facts* herein adduced throughout.

SECT. IV. LESSER SUPPOSITIONS.

The foregoing Hypothesis includes the following.

1. The Mind is *exquisitely flexible* in *Surface*, but *immutable* and *impenetrable* in Substance.

2. The *Surface* of the Mind, when not affected, is *perfectly uniform*, and is in *contact*, throughout, with *nervous influence*, or perhaps some *elementary Body*; this last being supposed the medium of its co-operation with the *Body* and *external World*.

3. The Mind possesses a limited or *qualified Motivity*, moving not, *consciously*, until Nerve has acted upon it; but, being duly

moved, it displays a peculiar *limited* Power of varying and regulating *its own Motions*; and, of giving *new* sorts of Motion to the *Body* which first moved it.

4. When the external force *wholly ceases*, the Action of the Mind is necessarily *included*; and it moves no more until Nerve stimulate again.

5. If, during a state of *rest*, any nervous stimulus press strong enough to produce *any Motion*, this *must occasion inequality* or Flexure, in the *Surface* of the Mind; and such Motion and Flexure is *accompanied* by an *instance* of *Perception*, whereby the Mind is apprized of its own *Existence*, or waked to *Feeling* and *Action*.

If those who think that the Mind is *always* active, are offended by the fourth position, I am not inclined to enter into the argument here.———They will, doubtless, grant, that the Mind, in its present state, is dependent upon the Body *to a certain extent*; and, if it could be proved that we think *always*, (which I shall not here dispute,) it would not injure either the *foundation*, or *superstructure*, here presented.

Farther, I beg it may be remarked *what* is the *nature, or extent*, of the *Hypothesis* now offered.———It is *not* that of the *Extension* of the Mind; for, this last is *a Fact*, which I consider *clearly demonstrated*:——neither is it that of giving the Mind *Figure*; because, *finite* Extension *must* have *some Figure*.——It follows, that *all* there is of *Hypothesis* is, the *particular Mode* and *Process* in which the Mind *(already proved extended)* is extended.

SECT. V. CAPACITY, AND REGION, OF PERCEPTION.

Now, if the Mind be *supposed* to possess the *Figure*, and *texture* of a *flexible Spherule*, it appears admirably adapted to receive *any number* of co-existing or *synchronous Motions*, and concomitant Flexures, on *both sides* of its *Surface; and, to entertain all conceivable varieties* of them, in *number*, *form*, and *degree*, so long as *any capability* of *flexure remains.*

It is equally adapted to receive *any*, or *all* of these *varieties* of Motions and *Flexures*, in *Succession*, with a *rapidity greater*, *or less*, in proportion as the *Motions are, in themselves, physically greater* or less.

Examining ourselves, we shall find our *Perception* equally alive to Affections of internal and external *origin;* and that it is bound to *suffer* any number, variety, and degree, of impressions *of both* classes, until the Mind become so *tensely* occupied, that *no more Feeling* can be inflicted by any augmentation of *force*.

It has here been advanced, and must be farther illustrated, that *all* these *Affections* in the *Mind* are governed in the same *Order* in which Flexures are governed in a gross *flexible inflated Ball.*——The inference here is plain, and I must suppose the *Surface* of the *Mind* to be the *region of Perception;* and the operation called perceiving *Sensation* to be produced *in* the *Mind* by *a Motion in that Surface.*

In this case Impression or *Flexure* is not supposed to be the *occa-*

sion, but only a *physical concomitant* of the *Motion* which *occasions* intelligence.

The *general Facts* described in Section II., are enough to introduce the *general Hypothesis*, which may serve us to refer to, until it be necessary to examine, and explain, *particular* Processes; when I hope to be enabled to support it by evidence of a very different Kind.

CHAPTER VI.

OF THE GENERAL NATURE OF THE FLEXURE AND REPULSION, OF THE MIND.

SECT I. PHYSICAL DFFORMITY OF THE MIND.

During *insensibility* the Mind is supposed to be *rotund* and *equal;* and every possible instance of Sensual Consciousness is occasioned by *Motion*, which *must* produce *inequality* of its *Surface*.——These inequalities I shall henceforward call *Flexures* in *Perception*.

The *Figures*, and *particular* operations, of these various *Flexures* will be subject of consideration farther on. At present I shall only suppose the *external* sort are in some vague manner resembled by the *impressions* made by the ends of a Man's *fingers upon an inflated flexible Ball;* whilst it is probable that *internal* Flexures differ widely in *Figure* from external ones: the internal species consisting, perhaps, of *obtuse enlargements* of the Mind.

Agreeably with this, if we suppose the *spherule Mind* oppressed to *extremity, by Motion* occasioning a single *Flexure* of *Sensual Pain*;

all lesser Flexures will have *disappeared;* and the Mind will present the Figure of a *Spherule*, with a *large concave Flexure* or *hollow*, on one side of its *exterior Surface.*———But, if the Mind be supposed *equally* strained by *Fear*, or other *mere intellectual* Pain, it will *not* display any external *acute* or *particular Flexure*, because the Motion which has occasioned the expulsion of all the lesser Flexures, *arises now within* the Mind, and it seems to operate *not* with any *acute* deformity, but with some sort of *general Distension.*

SECT. II. PHYSICAL TENSION OF THE MIND.

It appears from a view of all circumstances, that the Mind *distends*, less or more, *or grows turgid* under *every possible unpleasant Interest;* which mental *Distension* seems to be the *mode* of *regulating all Affections* under the *great Law* of *Interest.*———In this we are to recollect, that the *distending Power* of the Mind under *mere intellectual Interest*, is fully as *energetic* as its Power under the *Interest* of *Nervous* impulse.

The Mind *distends internally* in *all directions*, as it *suffers external pressure* on any one or more points; and this *internal Distension* may well be supposed *obtuse* or *general*, whilst the *external pressures* are acute or *particular.*———This is *analogous* to the *operation* of an *inflated physical* Ball, under certain circumstances; and there is reason to suppose that *mere intellectual* Affections, such as Fear and other Passions, are *accompanied* by *obtuse protusions* or general Distensions of the Mind, such as may not *much* alter the *gross Figure* of the Spherule, but only *strain* it to *inflexibility*, by the operation of a force *working within*, to the expulsion of all *Flexures*, (or *prevention* of all *Motions*) produced by exterior *weaker* impulses.

SECT. III. THE CONSTITUTION OF THE MIND DIFFERENT FROM BODY.

The Hypothesis of the *physical* Structure of the Mind, and that of its physical Mode of Operation, being partly described in the foregoing Sections, I intend this to represent, at one view, that Constitution which must serve to explain every appearance which may be brought to bear upon it.

First.———The *Mind* is a *flexible Spherule*.

Secondly.—The *physical* Mode of *mental* operation is by *Distension* under all *Interests* consciously *unpleasant*; and, by *Relaxation* under all *Interests* consciously *pleasant*.———These *two* Modes govern all Affections in the Mind.

But here, it is not supposed that the internal Motion of the Mind is usually one uniform Distension, resembling that we may attribute to Bodies.—On the contrary, every partial *impulse* (external and internal) is supposed to contribute its own proper share of *Motion* and *Interest*—whether pleasant, or unpleasant, and in this way is made up the *total* occupancy of the *Spherule* Mind, at any instant of Time.

I am far from advancing this last as any other than a *vague* conception that *some such* internal *oeconomy* is *necessary*; and never imagine it possible to trace this internal arrangement; my view being properly to the *superficial* operations of a mental *Spherule*, in contact with our proper *Body* —That *some* peculiar mechanism and operations exist there can be little doubt; for though it has been shewn that any *physical flexible Ball* can govern *contending external pressures*, in a *similar Order* to the *government* of *contending Sensations in* the Mind, yet it is impossible to provide for *mere intellectual* Processes unless we suppose an internal Principle of *varying Motion* and *Distension;* which Principle will not only account for all known effects, but strongly argues the operation of the Mind to be essentially different from that of Bodies.

It is farther important, that *such internal Principle* does actually exist, in great energy; and displays itself with as *much strength* under *mere intellectual impulses*, as it does under *nervous* impulses. ———As instances of this I may observe, that a *sudden judgment* which a man may form, upon *mere remembrance* of circumstances, (without the smallest *nervous* intelligence,) shall instantly *banish every other* tenant of his Mind; and, among the rest, *vivid sensual Pain* itself, if it had been present. And the delicate Vibration of a Man's *optic*, or *auditory* Nerve may give *a mere notice*, upon which the *Mind* shall *distend* to as *great extremity*, as though it had suffered the amputation of a Limb.———To which I may add, that the *intellectual* Pain may endure many years, whilst the *nervous* Pain may be soothed in a few hours.———After such Facts, I scarce think any one can suppose the *force* of *nervous* or *cerebral* impulses to be the *occasion* in such cases; and, farther on, I expect to shew, (in examining the known operations of the *Brain,*) that *strength* of medullary Vibration cannot be supposed the occasion of *mere intellectual* convulsion; besides shewing, (by the way, that *another cause* is very probable.

Here if any one ask, whether I suppose the Mind, (thus *flexible,*) can consist of *one* particle? And what *texture* such particle, being immaterial, can possess?——I answer, that it is my purpose to make a Succession of ordinary and *indisputable Facts* rally round the *Hypothesis* of a *Spherule Mind,* possessed of an *internal Principle* of *Motion ;* and beyond this I conceive no more of its *texture,* than a Newtonian does of the *texture* of *Solar* Attraction.——Or, than the Querist, himself, conceives of the *texture* of *Bodies.*

The doctrine of the *compressibility of Matter* may, for aught I know, help to throw some light on the *possibility* of the thing; but with *mere* possibilities I do not intend to amuse the reader.—— My humble task is, to place *Conscious* and *physical Facts,* side by side; and to shew, that the *Government* of the one *Class* of *Processes* is precisely like the *government* of the other, whilst the governing *Principle* is different.

If the Hypothesis of a *Spherule* went no farther than to illustrate the *general Fact* of similarity in the *Order* of the *entrance,* and *exit,* of *Conscious General Affections,* I should be ready to confess, that however correct the similitude, it could not merit our confidence; but, when I come to treat on the External Senses, I expect to shew a *mathematical relation* among *Conscious Facts*, in regard to their relative *Strength*, *Numbers*, *Times*, *Distinctness*, *rapidities* of *Succession*, &c.—the *juxtaposition* of all which with *correspondent physical Facts*, exhibits, I believe, a very different train of evidences from what has yet been noticed by any one.

CHAPTER VII.

OF THE CONSCIOUS DIVISION OF AFFECTIONS INTO PLEASANT AND PAINFUL.

SECT. I. INTERESTS CONTINUALLY VARY.

After the *physical* division of mental Affections into two *Classes*, called, (from their respective *Sources*) *external* and *internal*, there comes to be considered, a *conscious* Classification of them, of a very different nature, but *deeply* important to Mankind, which subjects all our Affections to *two sorts*, usually called *Pleasant* and *Painful*.

This classification embraces, equally, the Affections *arising* on *both* sides of the *mental Surface*; which seems farther to indicate the radical connection that subsists between *all* mental Affections.

Pleasant and painful Affections are of infinite *number* and *variety*; and of all *degrees*, from *Agony* on the one hand, and *Delight* on the other, down to mere *indifference*. But, it is important to remember (what has been advanced) that *none* of these are *independent* Affections, for each of them is apposited to an *occasioning* intelligence, which thus becomes *complex*, since besides being simple intelligence, it is joined to either Pleasure, or Pain, in some sort or degree.——— This fact has already been noticed, and must always *be kept in view* in treating upon *Pleasure* and *Pain*.

Some Interests may appear to resemble others, but yet *each* differs from *all*, in *some* degree, without end; owing to which, and to there being *usually several* present at *once*, it happens that the *complex conscious* state of the Mind, as to Happiness, or Misery, (as well as its *complex* state of *intelligence*, and its physical *deformity*,) is *continually yielding* to *change*.———Whole sets of Pleasures and Pains, (attached to their own respective *occasioning* intelligences,) may remain a while in what may be called their *identity ;* but they always do so with some addition, diminution, or *alteration*: either accompanied by some *new* associated Interest, or wanting some *old* one.— This is so true, that upon measuring the *parts* of *Interest*, (if we had a scale sufficiently minute,) we should probably find that our *compound tone* of *Happiness*, or *Misery*, like our complex state of *intelligence*, and our *physical* Motion and *deformity* of Mind, will *never be twice precisely alike*, during life.

Our *corporeal* condition, *always changing*, inflicts Changes, not only of *intelligence*, but, at the same time, of *Happiness* and *Misery* on the *Mind ;* which " strange eventful History," has been beautifully sketched by an exquisite observer of life, at *Seven* distinct periods of its progression.——In this way it is that we change our *relishes*, as the Body produces,—increases,—and at length ceases to urge, some of its wonted impulses; and the Mind becomes furnished with an increasing stock of *intellectual* Motives.——The immediate steps, however, of this same " History " are known to be *insensibly minute*, or so *gradual,* that *Memory* does not serve us *immediately* to *detect* the *difference* in *one* day's Interest, from that of the day *preceding* : yet we must be assured that no Man feels, on the aggregate, *precisely* the same to-day that he felt yesterday, unless by a mere accidental retrograde in the stream of life.——No Man perceives himself daily getting old in his *Interests,* any more than he perceives the grass grow ; but the one is as certainly progressive as the other.

The reader will not here think me going twice over the same ground. I before argued that our *complex* intelligence, or the *complex Motions* which produce them, may never be twice alike during life : but here I argue, that the *conscious tones* of Happiness and Misery, (which are only *apposited* Affections *purely* Conscious) take *consequent Changes,* from *Changes* in the *physical Motions.*

This *agreement* between *physical* and *conscious Changes,* bears evidence, not only that the Mind, (though admirably simple in Structure,) is adapted to *infinite varieties* of *Change* ; but, from *the complex juxtaposition, (conscious with physical,)* there is strong probability, that a *capacity* for *Intelligence with Interest,* and *a capability* of *Motion,* are inseparable Properties of the *Substance* in which they here appear to be associated.

SECT. II. INTELLIGENCE AND INTEREST, DISTINCT CONSCIOUS FACTS.

Pleasures, or Pains, are distinct, though apposited, *Feelings:* that is to say, they are distinct, though *apposited* with *intelligent Af-*

fections, which Affections are supposed to be *accompanied* by *physical deformities*, and by Tension, of the Mind; all existing concomitants with *Motions*.

Pleasures, or Pains, in other words, are *collateral* conjoined Affections of deep importance, by which we are made in a degree *happy*, or *miserable*, under most of our *intelligent* Affections: and, as such, they *can exist only attached to some* occasioning *intelligence*.

For instance, I feel the *grasp* of a hand, and this *Sensation* of *Touch* is *intelligence*.——But, together with this *Knowledge*, I may be *collaterally affected* in *any one* of *many* different ways, in regard to my *Happiness*: and the like may take place from an *internal Feeling* that a person hath *invested* me with *something* that I either *value*, or *dislike*.——Here, in *either* case, we have *two distinct* though *apposited conscious Affections*; the *one* being *mere intelligence* and the other being *our liking*, or *dislike*, of such *intelligence*.—— And, under these *complex Affections* I suppose the Mind also takes (*though it does not feel*) a *corresponding complex physical deformity*.

This account corresponds with that offered in Sect. X. Chap. III., of the Discussion, wherein it is argued not only that *specific intelligence*, and *Interest*, are two distinct collateral Feelings; but, that, together with these *two*, we have (in most cases of Sensation) another collateral *Feeling*, being the *Feeling* from *co-existent impulses*.

From this also we see the *basis*, and *machinery*, of *Association* and *Memory*: and how they are *grafted* upon the *Pleasure*, or *Pain*, which *Providence* has, perhaps for this purpose, *apposited to almost every absolute intelligence*.

It is true we have innumerable Affections which *we call indiffer-*

ent, because they are *nearly so;* and there must indeed, be a *neuter* state between *Pleasure* and *Pain*. Yet, by far the greater number of those *we think indifferent* intelligences have *really some Interest*, and life scarcely ever lets us hinge on the point of *mere indifference*: but, when it does, this will always *quickly escape Memory*.

It may seem an extraordinary assertion, but I incline to think it would be no easy task, to ascertain an instance of Consciousness that is *philosophically* indifferent, *or perfectly void of all* Interest.

SECT. III. MOTIONS CHANGE INTERESTS, AND EXIST WITH TENSION AND FLEXURE.

On the Hypothesis of a *spherule* Mind (and that *Sensations* are the produce of *Motions* in its *Sensitive Surface*) I infer that any difference in Happiness from *Sensation*, is produced by *some difference* in the *Sizes*, the *sorts*, and the relative *times*, of *Motions* of the Nervous particles which stimulate the Mind; and, this inference flows independent on any suppositions advanced by others, concerning the particular *Modes* and effects, of such Motions.

Great ingenuity has indeed been exerted to establish a Theory of nervous Motions, in the *seeming* capacity of *mental Functions;* but, the present inquiry, (originating in a very different view of the subject,) leads only to an ultimate demand of such Motions, *as secondarily instrumental.*

In the Theory of Dr. Hartley, the Hypothesis is, *Vibration* of the *Cerebral Substance, operating as Mind.*———But, in the present inquiry, the Hypothesis is, that of a *physical Structure* of a *distinct Mind*, as *indicated* by the *great Law* of *Interest*.

Both Theories are mechanical, as to the *occasion* of *Sensations*; but they come to this agreement by very different *routes*, and to this point I must, of necessity, have arrived, because *some* such *instrumentality* seems *necessary* to my Hypothesis: and I take it to be favourable that *some Motions*, in the Nerves, are admitted by all hands.

Sensations being *occasioned by Motions* of Mental *Surface*, then, during *Sensations* nearly of *indifference* the *Motions* may be *equal* and *moderate*, in regard of size and time;—during *Pleasure* they may be *unequal* and *moderate*;—and during *Pain* they may be *equal*, or *unequal*, and *violent*.———These as mere questions; but, at any rate, I suppose our *Happiness* is *affected* by *some difference* in the *Motions* which produce *intelligences*: and that such differences in Motions produce also corresponding *differences* in the *Tension* of the Mind, and like differences in its physical *deformity* or *Flexure*.

In every case of *Sensation* I suppose *Motion*, *Flexure*, and *Tension*, *are three co-existing conjoined Facts* which operate in the Mind.—These *three Facts are only physical*; and *Feeling* (which co-exists with them) makes a *fourth Fact*; but this last is a *conscious Fact*, and is *peculiar* to Minds.

The Mind is *not conscious* of either its own *Motion*, *Flexure*, or *Tension*; *(as such)* all which are only *inferred* from an agreement of *Facts* with the *Hypothesis* advanced in this inquiry.—The *only concious Fact* in the Mind, is *its own Feeling*, which I have already rgued is, (in almost every instance,) a *complex* Affection, being *In-*

telligence apposited with *Interest.* It nevertheless appears, that such complex *conscious* Fact *co-exists* with the *three physical Facts.*

SECT. IV. PECULIAR CAPABILITY OF A SPHERULE.

Such is our *Constitution* that we find our Conscious *estate*, as to Happiness, or Misery, is always the *result of all present Feelings.*

It is very rare in life that we are either completely happy, or completely miserable. Our Affections are usually mixed; and then, we are under necessity to pronounce upon the *compound;* those that prevail giving *name* to our estate.

If Pleasure and Pain (apposited to Knowledge,) are produced by *Motions* in the Mind, how admirably is such a Structure as a *Spherule* enabled to govern, as well as to receive, *any number* of *synchronous particular Motions?* and, how certainly must its *complex* internal Motion, and general Distension, be made up by, or result from, *all* the *present particular* Motions and Interests, at any time, however various they may be, and though of *opposite* natures, some painful and others pleasant.

Attending to the nature of a *Spherule*, (operating by flexibility of its Surface, and by Distension and relaxation of its Volume,) it must appear, that it will ever take such *complex* internal Motion, and degree of *Tension*, as is produced by the *joint efforts of all present partial* Motions and Interests: and not such Motion and Tension as would be occasioned by any number of them less than, *or any way different from, the whole peculiar group.*

And, if the Mind be occupied by any *one* violent Motion (and its concomitant Distension,) it alters ~~not the Principle~~; for this *one* will be *all* the Motion and Distension present in the Mind at such time.

All that is necessary to be supposed from this account is, that *some such internal* regulation is probable; and, *if it be found to correspond* with such *Facts* as illustrate the *superficial* co-operation of a *Spherule* with our proper *Body*, it is as much as is here intended in regard to *internal* Processes.

CHAPTER VIII.

OF VARIOUS CASES EXPLAINED BY THE HYPOTHESIS OF A SPHERULE.

SENSATIONS being considered as *occasioned* by proper *Motions*, producing *Flexures* in the Surface of the Mind, I shall, farther on, have occasion to argue, upon physical grounds, that each of our *Five* external *Senses* displays *Flexures* of *different* natural *Magnitudes.*—— I shall, also, have to argue that *sensual Ideas* (resembling, *Sensations*,) are accompanied by similar *Motions*, producing *Flexures* in the *Surface* of the Mind: and, that *Flexures* apposited with *sensual mere Ideas*, are *smaller* than the *Flexures* apposited with our *finest Sensations.*

This being for the present supposed, it should follow, on the Hypothesis of a *Spherule*, that if a Man be in distress, or Passion, he will lose his *Ideas*, (that is, lose *Memory* or *presence* of Mind,) *before he will lose* the *weakest* of his *Five external Senses*: for it is evident, that as the *Tension* of the *Spherule* always *increases* with increase of *any* unpleasant *Interest*, the *Surface* must become *less flexible* the more we are *previously* affected.

Now, it is always observed, that on *alarm*, or deep occupancy, if any Sense fail, a Man's *presence* of Mind or *Memory* is the very *first* Mode of intelligence that *fails* him: the like happens under violent Anger, or any other Passion, and equally so under Sensual Pain.——It is not less true, that in *extreme* cases even our *external Senses fail:* and the *weakest always first.*

I once knew a brave Man, who, with several others, was left on board a captured ship, the hostile crew of which were Indians, a party of whom, during the removal of the prisoners, had secreted themselves below, in the hope of retaking their vessel. With this purpose they assaulted the captors, at night; their attack was most sudden, sanguinary, and dismal; and this Man, (who with only one or two others survived) assured me, that at the moment of *surprise* his *Sight failed* him, though it was in a fine moonlight: but quickly recovering himself, he fought vigorously, and escaped. I knew the Man to possess both courage and veracity; and I have no doubt of the truth of his statement.

This case I explain, agreeably to my subject, by supposing that *sudden Fear* had strained his Mind so as to *expel* his *Vision* by preventing those minute Motions of *mental Surface* which Vision occasions.—And here I am to observe, that the expulsion did not arise from his *attending* to *other Objects*, because his Eyes were strained toward his enemies, though they, (at one time,) conveyed no intelligence. Here *no foreign cerebral Vibration* could *overcome his Sight*, whilst his Eyes and *whole* Mind were bent upon his dreadful assailants.

I have been told of persons who *lost Vision* whilst a horse ran away with them; and of a wounded person, in *Agony*, riding some miles on a horse *without noting any thing.*——More than this I have heard it said, that a Man of *cultivated* Mind has been known, in the presence of an august assembly, to be so confused, as to *see a written paper* as a *blank.*

Perhaps almost every man of experience and observation has marked numberless instances wherein mere *bashfulness, shame*, or other such Affection has, for the moment, prevented a susceptible person's Eyes, and Ears, from conveying intelligence from the Objects before them. In short it would be endless to recount the variety of cases in which a *strong* Affection prevents not only *Memory*, but *also Vision;* and, in extreme cases, overrules *almost all Sensations*, at least *for the moment.*

It is however well known, that such *extreme Distensions* of the Mind cannot, (or *never do*) *last any length of time;* if the sufferer be above idiotcy. And, however deep our Agony or Passion may be, for a *moment*, or a *few moments*, or perhaps a few *minutes*, some change *very soon* takes place.——This is well accounted for when we consider, that if Fear, or other Passion, *amount to Despair*, the Mind *instantly relaxes*, and lets in new Affections; and, if such Passion do *not* amount to *Despair*, there is always a *possible* admittance for any *accidental* impulse which may change the scene.——Add to this, that our *Nerves cannot inflict Agony*, in a continuous Motion, for any *great length* of *time;* though they may durably convey much Pain, *short* of Agony.—We also know, that every Mind is exposed to a thousand assaults both from *Memory*, and *external Things;* insomuch that it *never* can be *long* without some *new impulse.*——

In truth, it seems to be the inevitable condition of a human Mind, during vigilance, to be *continually changing*, either by great or by little steps.

It is very well known that men perform all *nice* bodily Actions that they are accustomed to, such as *music*, and *billiards*, with an effort so very slight, that it scarce surpasses the least degree of mental agitation; whilst it must happen, (on the Hypothesis of a *Spherule*,) that the same *Surface* which *receives* Sensations, is that which must *re-act* upon the Nerves in all Motions of the Body.——Now, *Ideas* are supposed to be accompanied by *faint* reproductions of the *traces* of Sensations in the *Surface* of the Mind; and it is probable that the Motions of Mind which convey *musical Action*, may not much differ in strength from those *revived lesser Motions* which accompany *sensual mere Ideas*.—The probability of this will be shewn farther on; but here, supposing it to be so, it should follow, that any mental Affection sufficiently strong to prevent *Memory*, should, perhaps, evidently affect correct *nice bodily Action*, such as *music*, *billiards*, and the like.

Such, it is well known, is *Fact;* for if we be affected by Pain, Choler, Fear, Shame, or other Passion, we shall neither *remember*, nor accomplish any *delicate Bodily* purpose, with any thing like the *nicety* that we can do when we are *tranquil*.

If a Man be either *timid*, or *over-hot*, at *play*, or in *combat*, he shall not manage his weapon so expertly, though life itself depend upon the stake, as if he were cool and deliberate: and in such a state if he have a *cause* to plead, he shall find his *Memory* serve him very *sorrily*.

How often do we acknowledge, that we were so *concerned*, *ashamed*, *surprised*, or *angered*, that we quite *forgot* those very things which it was our best interest to have either *said* or *done?* and find the *Memory* of them come provokingly, to taunt our imbecility, the moment any of these Passions have left the Mind sufficiently *relaxed* to admit *correct* thinking.

To conclude this argument, it seems obviously to appear, why correct *delicate Motions*, such as serve to *occasion Thinking*, *Memory*, *Imagination*, and *delicate bodily Action*, must be impaired, (and perhaps nearly in equal degree,) by strong Affections, if we admit *all* Affections to be *occasioned by Motions* in the *Surface* of a *flexible Spherule;* which *Spherule* must be *less* capable of *fine Motions*, in proportion as the degree of its *actual Tension* renders its *Surface less* easily *farther flexible*.

Now I think, the *Order* of *government* of every Species of *Consciousness* hitherto considered, seems *accounted* for with probability, by treating the Mind as a *flexible* Spherule. And the *concomitance* of *Motion*, *Flexure*, and *Tension*, explains the *physical* Analogy of such *government*.

CHAPTER IX.

OF THE EXTERNAL SENSES IN GENERAL.

SECT I. THE ORDER OF THE SENSES.

Having in the foregoing Chapters roughly delineated the *order* of government of mental *general* Affections, I am now to attempt some account of those minute, or *particular* ones called *Sensations*; and to consider the relations they bear to each other.

In the progress of this attempt, there will occur many Evidences which, I must think, greatly corroborate the Hypothesis of a *flexible Spherule*; not that they can apply more exactly than those that have been already cited: but, being in their nature more *particular*, and having been preceded by many *Facts* in *coincidence*, they strike with augmented force, and claim proportionately the greater consideration.

Still I do not in the least imagine that I am to avoid error, but it will be comparatively of little moment if *the Hypothesis of a*

Spherule shall stand, whereon others may employ themselves, advantaged by more Knowledge and discernment.

There are *Five* different sorts of *inlets* by which the *Body* conveys *intelligence* to the *Mind;* and these are universally known under the familiar denomination of the *Five Senses*, which are called *Touch, Taste, Smell, Hear*, and *Sight.*

These five *terms* I shall here employ to signify (respectively) *not* the nervous *Organs* which convey the several *Species* of *Intelligence*: but, the *peculiar sorts* of *Motion* which I suppose are *occasioned on the Surface of the Mind* by those Organs.

The first thing I shall remark of the *Five Senses*, as *physical* Affections on the *Surface* of the Mind, is, that each of them consists in mental *Motions* which I suppose of *different degrees* of physical *size* or oscillation, because they take, respectively, different *portions* of *Time;* which also must produce a *proportionate difference* in the *physical deformity* of the *Spherule* :——This last may be supposed, farther, from the respective physical *impulses* which occasion them; and we are *consciously* assured, by comparing our correspondent Feelings, that it is so.

The *physical external occasions* of *Sensations* must operate by Motions of *relative Sizes*, if we may judge by the relative gravity of their respective impulses.———*Light*, which *occasions* the *impulse* adapted to *Vision*, is a much *finer* Matter, than that *Air* which occasions *Hearing;* and the particles of *Air* which occasion *Hearing*, compose a finer medium than that which occasions *Smell*, because effluvia do not travel unless they float in the atmosphere. Farther, *Taste* cannot be felt unless the *sapid* particles be solved in a *gross fluid*, in contact with its Organ: and, lastly, *Touch* requires an impulse more *physically coarse* than any yet mentioned.

Considering the Mind as a *physical*, as well as a conscious Reality, we should naturally suppose, that *unassociated sensual* Affections always correspond to the *Sizes* of physical *Motions*, in *proportional times*, if the *kind* be the *same:* and that (besides the consequences of *difference* in *kind*,) Pleasure and Pain must farther depend on these Motions being *in*, *or out* of, their proportional times. ———Now, in the *Interests*, respectively, of the *Five* external *Senses* it actually appears to be so.

Touch can consciously *Torture* the Mind far beyond the Power of any other external Sense; and can wholly *expel all* other *sensual* Affections. It can also exist in several *synchronous separate* Sensations, and more especially so because its province is no less than the *whole Body*.———Its successive varieties are many.

Taste, (next after Touch,) can occupy Perception more than any other Sense; and produce great Misery, and violent bodily convulsion. It can entertain but *few distinct synchronous* Sensations; though its successive varieties are unlimited.

Smell, is very like Taste in its capacities; but is, however, certainly a *weaker* nervous Sense.———Abominable Tastes can agitate us more violently than abominable Smells properly so called. Sternutories, and such Smells as attack respiration are not within the Province of this Sense, any more than the naked Sun is a proper object of Vision.

Hear (*unassociated*,) has much *less* Power to move the Mind toward extremity than any of the three Senses already mentioned; yet, harsh Sounds make us *uneasy*.——This Sense can entertain a *greater* number of *distinct synchronous* Sensations than either Taste, or Smell; and its *successive* varieties are endless.

Sight is consciously much weaker than *any* other external Sense; and no Sensation of *Colour*, (*unassociated*,) can give more Pain than is received from *mere ugliness* of Colour, or deformity of Figure; neither of which can ever move us much, I say *unassociated*.—This Sense, in virtue of its *weakness*, can entertain a *great* number of *synchronous* Sensations *without confounding* them; and its *successive* varieties are *endless*.

Agreeably with the above enumeration, the proportionate *opposition* of *conscious Interest*, to *physical impulse*, throughout the operations of *all* the external *Senses*, is evident; and it must shew, at least, that Consciousness and Physical Process are very closely associated, in the Mind.

Together with this consideration I must observe, that the *Capacity* of *each Sense* to entertain *distinct synchronous intelligences*, as well as to admit them in *rapidity* of *Succession*, will be found, *precisely*, according with their *conscious* and *physical weakness*: whilst we know, that *synchronous Motions* on the *Surface* of any *gross flexible Ball*, must tend *less* to *confound* each other, (and must *also* be capable of *more rapid Changes*,) exactly in proportion as they are *less* *in volume* than others.——This last mentioned physical Fact, which is so unquestionably correspondent to Facts in *Consciousness*, I deem of considerable importance, because the Hypothesis of a *Spherule* explains, so satisfactorily, *why* these things *are so.*

The Sense of *Touch*, indeed, may entertain a greater number of *distinct synchronous* intelligences than the next *weaker* Sense, Taste; but this *only exception* excites no surprise when we consider, that *Touch* embraces the *whole System*, including *all* the other *four Senses* themselves: as, for instance, the *Eye* may give varied Pain of *Touch*, as well as intelligence of *Vision;* and it will be argued why both such Sensations from the Eye may *co-exist*. All the four *weaker* Senses maintain their relative *capacities* for intelligence, precisely in correspondence with their *conscious Interest* from *physical impulses.*

If we *taste*, or *smell*, a compound of *twenty* Things, we *cannot* discriminate, perhaps, more than *four*, or *five*, amongst them; and even these are not felt wholly distinct, but only *discoverably blended.* But, we can suffer a *greater* number of *synchronous Sounds* with more *discrimination:* and, we can tranquilly contemplate *an hundred* synchronous *Visual* Sensations, *each* conveying its own distinct *peculiar intelligence, without confusion.*———This ought to be so if *Sensations* are occasioned by *Motions* in a *Surface;* which *Motions* must *tend more to confound* each other in proportion as they are *greater.*

Again, we can receive Sensations of *Sound*, in *Succession*, much more rapidly than those of *Taste*, or *Smell;* but the *Succession* of [illegible] can be *very much more rapid* than those of *Sound:*

which ought to be so if the *whole* are occasioned by *physical* Motions, of greater and less scope, under which the *Surface of the Mind has to rise and fall.*

SECT. II. HYPOTHESIS OF UNDULATION, AND SUCCESSION.

From what has already been advanced concerning *Flexures* of the Mind, and from the continual *Changes* of the Mind's *Surface* under nervous impulses, it must follow, that *Sensual* Flexures are, in fact, a Succession of *Undulations.*

After some observation of *Facts* I am inclined to suppose, that the *Motions* which occasion *Sensations,* may generally be distinguished into *three* several *Species* or Modes: and these *Motions* I suppose to produce the following sorts of *Deformity,*

1st. A *Flexure* or depression in the *Surface* of the *Mind;* which Flexure may have different shapes, and really has different sizes, in the different Senses; and, under different degrees of occupancy of the same Sense.

2d. An *Undulation,* or *Undulations,* playing on the Surfaces of such *Flexures, so far as Flexure extends.*

3d. A change is the size or shape of *Undulations.*

These I shall attempt to guess in their *order.*

A *Flexure* of *Sense,* I suppose to be a *depression,* to which I shall not here attempt to assign any *precise* definite shape or size: but it may, however, be supposed a *shallow concave* on the *adapted* part of the Mind's *exterior Surface*.

Undulations, I suppose, are the mental products, of physical tremulous impulses of the nervous medium, upon the Surface of a Flexure; and they may *vary infinitely* in kind or shape, and *considerably in degree* or *size*, which may be conceived from the *exquisitely flexible* nature both of the *Mind*, and of the nervous medium.

A *Change* of Undulation (in either *kind* or *degree*) must be a *Motion different* from either that of the *preceding*, or *succeeding*, *Undulation*. Also, if the *Undulation* do *not* give way to another, *but only cease*, this must be *equally a Change of Motion*, or state; just as the *beginning* of the Sensation was a change from *rest*.

Now, whilst we are contemplating the *nature* of *Sensations*, it will be necessary to keep *these three Species of Motion and Deformity* in view. But it is proper to remark that although the *large* supposed shallow Concave, here called *Flexure*, was first adopted to illustrate the *general* Process of contending Affections, at that early Stage of the inquiry, it may be, that the necessity of such *large Concaves* in the Mind is *not indicated*;—because the operations of *Undulations*, and their *Changes*, (acting with, or against, an *internal distending* Principle,) may fully answer every demand; and, if so, there may be only *two* Species of Deformities, those of *Undulation* and *Change*.

Here it may be proper to protest against any *perversion* of the Hypothesis.——The supposition of *Species* and *Phantasms* in the Mind is justly condemned by modern Philosophers; and it is obvious, too, that Mr. Locke, in speaking of Ideas being *struck deep*, and *Prints* which *wear away*, speaks figuratively.——At the same time it will be observed, that in the Hypothesis of Flexures I speak physically, and literally.——But it must not therefore be mistaken that *Flexure*, or *Undulation*, is supposed either a Sensation, or even the occasion of a Sensation.——*Flexure, or Undulation,* (I repeat) is supposed only a *physical necessary concomitant* of partial *Motion* in a *Spherule*.——Now, I do not suppose *Motion itself* to be a *Sensation*, but only a physical *occasion* of a Sensation.——All I advance is, that Feelings from external impulses are *occasioned* by *Motions;* but still, such Feelings are other things than Motions.

I am now to argue, that the *Motion* here termed *Change*, is farther indicated by the Mind taking an *Interest* (and sometimes a *great* Interest) in these *moments* of *Change* of *Undulations*, which, *in themselves*, have very little either of absolute *Interest*, or of physical *force*. ——This will be found a curious *Fact;* and the Interest so taken I shall hereafter call, the *Interest* of *Succession*; in which Succession the Pleasure, or Pain, is evidently occasioned by *kind*, and *not* by *degree*, of *Motion:* of which the following is an instance.

If we hear the musical note *A*, it is *occasioned* by a *Motion*, and exists with *Undulation* in the *Surface* of the *Mind:* but if the Sound *A*, is *succeeded* by the sound *B*, we then have a *new Undulation*, differing, (though not much,) in *Size* and *Figure.*———But, besides these *two sorts* of Motion, the *step* from the *Motion* of *A*, to that of *B*, must have been a *middle* Motion, *different* from *either* of them; and, the *Interest* we take in *hearing B follow A*, is the *Interest of Succession* in this case. Now this Interest is well known to be very *great*, independent on the Interest of *A*, or *B*, *singly* heard, or heard *both together.*

All the notes in the scale, *singly* heard, convey *pleasing* Sounds; though certainly they are so in a *very low absolute degree.* But, if they succeed each other in *certain Orders, and Times*, their *successive Interest* is a true *sensual Pleasure* of *great degree;* and that, *wholly independent on Association*, as is proved by its effect on *Savages*, and even on *brute* animals, of which we hear frequent instances.

I agree with those who will be ready to contend for the *intellectual* pleasure of melody, provided they do not exclude the *sensual* Pleasure, which both Men and beasts acknowledge.

Here I must argue, however questionable it may at first appear, that the *sensual Pleasure* arises *not* from the *notes themselves*, but from the *Changes*, or *intervals;* that is, owing to the affected Points of the *Mind's Surface* being *moved* or *tumbled* from *one posture* to *another*, in some more or less agreeable way.—And if the notes, by succeeding in *other Orders*, and *Times*, tumble the Surface in any way *not* agreeable, we shall then feel *only Pain* from *every one* of these notes which are, *in themselves*, admitted to be *absolutely pleasant.*

It is evident that Sounds, *in themselves absolutely pleasant* in one case, cannot be *in themselves absolutely painful* in any other: therefore it is the *interval*, or *mode of tumbling*, which being different in the two cases, gives *different Feelings.*

If one note be *repeated* an hundred times, it will afford us, (as we might expect,) *no* increase of Pleasure, but only a repetition of *insipid Sound;* because the Motion in the Mind will be *absolutely* pleasing in a *very low degree*, and will *not* be *altered*, but only *repeated:* and this repetition *will not change our Feeling* until the Nerves, by *over repetition*, *begin* to *inflict* their Motions in some *uneasy way*. By such means we may, at length, get wearied even of the *sweetest melody.*

This Process of *musical Pleasure* will be farther considered when I come to treat on the Sense of *Hear;* at present I shall turn to compare Processes of Sensation, in general, (as above argued,) *with known Processes of physical Undulations.*

SECT. III. PHYSICAL ANALOGY OF MENTAL UNDULATIONS.

When it first appeared requisite to illustrate those *general* operations of the Mind, which depend more on its *Sphericity*, than upon the *exquisite* degree of its flexibility; any *flexible Ball* might have answered the purpose: but, it must at once appear impossible to find *any* such physical Body, possessed of flexibility sufficiently *nice*, to approach that degree which we must attribute to *Mind.* When, therefore, the supposition of *mental Undulations* first occurred, I did not expect that any medium would present, to admit *occular* illustration of such supposed Processes. Engrossed, however, by the inference of *mental superficial Motions*, it occurred to me to amuse myself by observing Processes of *aqueous* Undulations; which, though vastly inadequate, do appear to bear some rude comparison.—— Accordingly I gave attention to the Surface of Water, during various Changes, and in the progress of this amusement I remarked as follows:

1st. When the Wind blew fresh, the Water was covered with *large Waves*; which may vaguely answer in analogy to *Flexures* of *Sensation*.

2d. When a *few* drops of *heavy rain* fell upon the *faces* of the above-mentioned *large Waves*, such *drops* produced circular *small Undulations*; which may answer, rudely, to the mental *Undulations* on the Surface of a Flexure.

3d. The *Undulations* produced by these heavy drops of rain, were continually *giving way* to *succeeding ones*, which might be of a different *size*, and perhaps a different *form*, as the rain altered in *weight*, *shape*, and *number*, of drops: and this affords some *vague* Notion of the Process called *Change*.

In these gross physical Processes, the *Deformity* of the *large* Waves, and their *greater Changes*, were well known to me; but I was not aware (until I learnt from observation in the present case) that the *delicate Undulations*, raised by the *finest rain*, will play upon the *bosoms* of *large* Waves, as *correctly* as they do upon still Waters.

Attention to these gross visible *Facts*, (*to which I was led by my*

Hypothesis,) afforded me encouragement in the conviction, that such complex *Motions* as the *Hypothesis demands, are actually those which exist in physical Nature;* and any Man may afford himself conviction that it is so, if he chuse to observe Processes of *aqueous Undulation* during *wind*, and during various degrees of *rain*, from the *heaviest*, down to the *finest perceptible* impulses.

Below this he may, farther, *conceive the* almost endless *possible varieties* of such *Motions* as *might* be produced by *various Modes*, as well as *degrees*, of indefinitely small impulses.

SECT. IV. HOW DO THE SENSES CONVEY DIFFERENT FEELINGS?

If Sensations are, indeed, the consequences of *Motions* in the *Surface* of the *Mind*, it certainly is mysterious how mere variety of *Motion* should convey such very *different intelligences* as *Touch, Taste, Smell, Sound,* and *Colour.*——By what *precise* means of agitation these several sorts of Knowledge are conveyed, is perhaps beyond our search; but we are not obliged to suppose such differences to arise from *degree only:* and may conceive some unknown provision for altering the *Mode* or *kind* of impulse, as well as altering the *degree.*——If we do suppose such provision, it does not appear repugnant to belief, that *conscious* differences may all be effected by difference in Motions.

We know, already, that mighty difference of *intelligence* is produced by *mere difference* in *degree* of *stimulus.*——Thus, a slight odour of a field bug, is the pleasing odour of lemon grass; a slight taste of asafoetida, is the savoury taste of garlick: and it is said, that "a dung-hill hath smelt like musk, and a dead dog like elder-flowers."

Now, though all this is far short of the difference between *Taste* and *Sound*, yet, as the differences have been produced by mere difference in *degree* of stimulus, we may conceive that some difference in *Mode also*, might produce any such variety as we find in the Five Senses. Beyond this we know the corroborating Facts, that by stimulus we can produce *Light* and *Taste*, when neither a luminous, nor a sapid object is present.

The amount of all this goes to support the opinion, that it is the universal Sense of *external Feel*, divided externally by organic elaboration into the *Five Senses*, that makes us *internally conscious* of all those *various intelligences* by which we imbibe our Knowledge of external Things.

If this view should be found just, it will only add one more to the innumerable instances in which Man is excited to adore the transcendent arrangements of his Creator.

CHAPTER X.

OF THE SENSES TOUCH, TASTE, AND SMELL.

SECT. I. THE SENSE OF TOUCH.

THAT useful monitor, the Sense of *Touch*, is the most imperious of all the external Senses; but its operations do not appear so useful in affording the explanations here sought, as are those of the *fine* Senses.

The province of Touch being no less than the whole Body (with trifling exceptions) this Sense is not so confined in *Synchronous* distinctions, as is the case with *Taste* and *Smell*:—but Touch evidently displays *analogous* phenomena with all the other Senses; among which we perceive the *Interest* of *Succession*.—As an instance of this, I may notice the *Pleasure* we feel in *articulating* the *Succeeding* steps of soft flowing poetical language; and the irksome effect of *pronouncing* a *Succession* of harsh Sounds.——We feel Pleasure in the *Motions* used in *uttering* various sorts of words, as truly (though not as lively) as in hearing them: and both these *Sensual* Pleasures are different from any *intellectual* Pleasure which the Subject may convey.

The inquiry in the present part of my Subject being the *Conscious* and *physical* Operation of the external Senses themselves (and not the Knowledge of external things conveyed by them) I shall only observe here, that the way in which we *generally* learn to use the Sense of Touch, and usually practise it, could afford us *no certain demonstration* of the *Extension* of external Bodies.———A Sceptic might certainly object, that *Extension* discovered by *Successive* Touches, of *part after part* (all which parts must therefore be tacked together *by Memory*) may *possibly* be nothing but *Ideal* Extension: and the *only unquestionable* Evidence, whether in *Touch*, or *Sight*, is, —a *Consciousness* from *Co-existent impulses.*

SECT. II. TASTE AND SMELL.

Taste and *Smell* are nearly related Senses; and differ not much from each other in *grossness* and Power to move us; though they unquestionably maintain their assigned degrees of *Power* and *capacity*.

Taste and Smell have their *Interests of Succession*; but, as in ordinary, we occupy ourselves at least *some time* upon either one *Taste*, or one *Smell*, it requires experiments to ascertain that the Nerves do not lead us into error.

It appears to be the case with the Senses of *Taste* and *Smell*, in yet a greater degree than that of *Touch*, that however useful in themselves, they are of little use toward illustrating any matter of search in the present inquiry. They may therefore be passed over, and recourse be had to the *fine* Senses, *Hear* and *Sight*; both of which possess great Interest in the view of examining the *Hypothesis* of a *Spherule Mind.*

One remark I beg to make in this place, which would have been better attached to a former Section.—It being confessed that the capacity of Smell to convey *Ideas of Extension* is doubtful, it may however be observed, that *Smell* is, in fact, scarce any other than an *appendage*, or outwork, to the Sense of *Taste;* therefore its capacities, as a *distinct Sense*, may very well be expected to be curtailed.

CHAPTER XI.

OF THE SENSE OF HEAR.

SECT. I. THE PROVINCE OF HEAR.

The Sense of *Hear* is *consciously weaker* than either *Touch, Taste,* or *Smell.* It is the *strongest* of the *two fine* Senses, (that is stronger than *Sight,*) but is mercifully constituted so as to be *rarely* capable of conveying *much Uneasiness,* except in *Association* : though, (over and above its extensive utility,) in its proper office *as Sense,* it can impart great sensual Pleasure; which also may be *augmented* by *Association.*

Extreme *loud Sounds* (as the explosion of a magazine) convey *sensual Pain*; but such are beyond the proper *limits* of *Hear*; and are *pains, strictly,* belonging to the universal Sense of *Touch.* The proper *Pleasures* and *Pains* of the Sense of *Hear* are such, only, as accompany the *Mode,* and *variety,* but *not* the *degree,* of *Sound.*

SECT. II. CAPACITY OF HEAR.

The *Motions*, and consequent mental *Undulations*, of the Sense of *Hear*, are herein inferred to be *smaller* than those of *Taste*, or *Smell*; in proportion as the *physical impulses* of Sound are smaller than those of Taste or Smell; owing to which, they may exist synchronously in somewhat *greater* number without running into each other, or *confounding* the *intelligences* they convey: and we find them *consciously* weaker impulses, proportionally as they are *physically* weaker.——Thus, a person who can discriminate only *two*, *three*, or *four Tastes*, in a compound of ten or twenty; can, however, discriminate *five*, *six*, *seven*, or *more co-existing Sounds*, each conveying *its own* peculiar *intelligence*.

Now such, precisely, is the difference in physical effects, if we remark the *Surface* of standing *Water*, when *undulated* by small *rain*; and, then again, by *very fine rain*.—In the *first* case, the little Undulations *rise distinct*, but *blend* before they *die*; but in the *latter* case, they *rise* and *die without blending*, and are continually *replaced* by *similar* ones, which *keeps up similarity* of *distinct impressions*. And this they may do in *greater number*, and *distinctness*, *proportionally* as the *Undulations* are *smaller* and *short lived*.

Farther, if Sensations are occasioned by physical *Motions*, (producing mental *Undulations* of *different sizes*, in relative *times*,) it is physically evident, that the *rapidity* with which they *can succeed* each other, must *naturally* depend upon their *sizes*; that is to say, upon the *natural Times* they must take to *rise* and *fall*.

The *Motions* or *Undulations* of *Hear*, being supposed *smaller* than those of *grosser* Senses, but *larger* than those of *Sight*, it should follow, (as a physical consequence,) that *Hear* can receive *successive* Sensations with *more rapidity* than can any *grosser* Sense; but *not* with *rapidity equal* to that of *Sight*.

Now, the organs of *Taste* and *Smell* are so constructed, that we cannot ascertain the relative possible rapidity of their *successive* Sensations (at least not without resorting to experiments, which, indeed, I have not done, deeming it unnecessary,) but nothing is better ascertained than, that Sensations of *Hear cannot succeed* with near so great *rapidity* as those of *Sight*; which shall be farther considered in treating upon this latter Sense.

Thus, in the *two grand* considerations, the relative *capacity* for *distinct Synchronous intelligences*, and relative *capacity* for *rapidity* of *successive* intelligences, we find the *Order* of *conscious* known Facts of Sounds, apparently explained by the *physical* operations of *an undulating Surface*.

SECT. III. INTEREST OF SUCCESSION IN HEAR.

I come now, again, to touch on that wonderful property of *Hear*, which (taken *without Association*,) conveys *Interest* of a *pleasing* nature; and in which it very *far surpasses* the Powers of the *grosser* Senses; thereby indicating that it is *not degree (but kind)* of *Motion* that gives *Pleasure*.

If any of the *three grosser* Senses convey *little absolute Interest* in

Sensation, it will convey but equally *little Interest in the Succession* of another Sensation *of equal absolute Interest.* Thus, if *Bread taste pleasantly*, yet nearly *insipid*, we shall feel *no Interest* of *Succession* by *changing* from bread to *potatoe*, if *potatoe* be to us *equally insipid!* ——But, the Sense of *Hear* can impart *great absolute sensual Pleasure* by a *Succession* of Sensations, *each one* of which is *absolutely nearly indifferent*: and all of them so in *nearly* an *equal degree.*

If we *repeat* any musical note *twenty* times, we have what is called *pleasant insipidity.*—If we *vary* the note in a thousand *given* ways, still we may have *only mere insipidity.* And, if we vary it in *other given* ways, we may have *Uneasiness.*—But again, we can vary musical notes in *other given* ways, for ever, to produce *endless varieties* of *absolute sensual Pleasure.*

It must follow that the *Sounds, themselves*, possessing, as they *all do*, but *very little* pleasing *Interest*, and equally *little* physical force, are not the occasions of *pure Pleasure*; but the *Pleasure* consists in the partial *tumbling* of mental *Surface* from *one Undulation* to *another*, by which the Mind is *sensually solaced*: and, whilst this is the *conscious Fact*, we see why it should be so, on the Hypothesis of a *flexible Spherule* Mind.

A note in *music*, like the Act of *pronouncing* a *word* in poetical language, puts some Point of the Mind's Surface in a *posture*, to *receive Pleasure* by *tumbling* to *another posture*; and these Changes may follow, and vary, without any limit.

According to this account, *sensual contacts* are but the steps of Pleasure; and here we step *continually* from the contact of sensual *Uneasiness*, to the contact of *pure momentary* sensual *Pleasure.*

However questionable be the assertion, what I have said amounts strictly to this, that the *notes* give *Pleasure not* by their *duration*, but by the *interval*, or *tumble* from *note* to *note*; and that each note, besides giving Pleasure, leaves an *Uneasiness* wanting *another*: for, if the last note do not leave an Uneasiness and *desire* for *more*, we shall naturally walk away, as we do to avoid an excruciating street musician, and listen no more for the sake of *melodious* Succession. ——This Process will be farther illustrated in treating on Pleasure and Pain.

That the *rise*, or *fall*, of mental *Surface* during the *interval*, (even when not varied) is the occasion of *pure* Pleasure appears farther, because a long continued note (heard alone) is nearly *insipid*; but several *repetitions* of the *same* note, all contained within the time of the long one, is *absolutely pleasing*; as when we hear several *quavers*, or *semiquavers*. Yet a *prolonged repetition* of these does not increase this Pleasure; but diminishes it by affecting the Nerve.

I expect this will raise animadversion; but, it is as I feel; and is here submitted with deference.

Thus, then, in the operation of the fine Sense of *Hear*, I presume, that varieties of Pleasures and Pains are not produced in the way ingeniously supposed in the Theory of *Vibrations*; that is, merely by difference in *degree* of *Vibration*; but rather, by difference in the *Mode* of *Succession*.

If it were not so, then, as each *note* is conveyed by a different *size* or *degree* of *Vibration*, each would differ in *Interest*; and a *grave* note must *differ vastly* (in Pleasure, or Pain) from its *Octave*, which in fact *it does not*, but *both* have nearly *equal Interests*; which I suppose is because the *larger Vibration* takes proportionally *longer time* to oscillate, or *move* the *Mind.*

The difference in *degree*, or *loudness*, of Vibrations, must indeed be the occasion of some difference in Interest; but, this does not make one note A, and another B. The *musical Pleasure*, or *Pain*, that Sounds can convey, is the *result* of their *succeeding* in adapted *varieties*, at irregular intervals; that is, the result of tumbling the *adapted part* of the *Mind's Surface* from *one* shape to another: wherein, *it is the variety* of *Mode*, and not variety in *degree*, that occasions the *Pleasure*.

In the above account I have, of course, had in view no other than the *sensual* effects of *melody*; the capacity and love for which, *Nature* has stampt upon *all Men*, and even upon *beasts*: and the Pleasures of which, some only are denied through the imperfection of their nervous Organs.

To those who incline to think *music* a Pleasure *purely intellectual*, I may observe the *pleasing* effect produced on many *animals*, on their *first* hearing a fascinating melody. And, if the *pleasure* of *melody* be not independent of *Association*, why does a sweet air please us, more than an *insipid* one that calls up the same *associates?*

If a Man dance with his mistress to a strange air, merely *insipid*; and again to another strange one that *delights* his *ear*; either of these may, at any time *after*, recal the *Idea* of his *Happiness*; but he will still find the *one* air *insipid*, and the other *delightful*, though the associated *Interest* may improve the *dull* tune, *one* or *two* shades in his liking.

But certainly, music can convey intellectual Pleasure in various degrees: which, when joined to the sensual Feeling heightens the whole.———The Power of *music* over the *Passions* is confessed, universally ; but, this power is simply the power to *rouse*, or *soothe*, the Mind by *imitation*, and to *revive past associations*.

Arguing from the uncontrovertible positions of Locke, *martial* Sounds can raise *no ardour* for *war*, in one who *never* had *Ideas* of *war:* but, the various *Ideas* of war having been deeply *associated* with what we call *martial music*, the sound of the one revives the Memory of the other; and, this Memory revives the Passion for glory, and other Feelings.

Soft music has been likened to the "Memory of joys that are "past." The fact is, it often *revives* the *Memory* of joys *that* are past, and brings the sad recollection that they never can return. Hence, the melancholy it inspires, if these joys are not long flown, is so far beyond the limits of Pleasure, that we become unable to endure it, though the power of *melody* tends to alleviate.

Musical Sounds, according as they vary, in *kind*, regularity, and time, must have a corresponding *sensual* effect of *rousing*, or *soothing*, the Mind ; and, so far, will produce the *same Feelings* in *different persons* who have *no associated* Ideas in *common;* but their power over the Passions depends on the Feelings which we have *previously* associated with such Sounds. The same Sounds which one nation associates with Ideas of *war*, another may attach to Ideas of *feasting*, or to any Passion *foreign* to Glory; and, in this way *opposite* Passions may be roused in different persons by the *same* Sounds.

What has been advanced on the *Sense* of *Hear*, is perhaps all that is necessary to illustrate the Hypothesis of a *Spherule* Mind.

CHAPTER XII.

OF THE SENSE OF SIGHT.

SECT. I. THE PROVINCE OF SIGHT.

SIGHT is at once the *weakest*, most *comprehensive*, *rapid*, and aggregately *delightful*, of all the Senses.

The Great Dispenser of mercies hath so ordered, that no proper Sensation of *Sight* (taken unassociated,) can convey any thing worse than a very *slight Uneasiness*: whilst, on the other hand, it can impart *exquisite Pleasure* in many cases; and convey either *safety*, or *utility*, in almost all its impulses.

Colours (shewing Figure and Motion,) are the *Conscious Sufferings* of *proper Vision*; and *intense Light* gives only Pain, by becoming an impulse on the Sense of *Touch*.

Colour, in its *varieties*, forms Ideas of superficial Figure: and those raised by the most *disgusting* animals would convey but very *little Interest* if we viewed them *without Association*.——Thus we feel *Uneasiness*, though *not great* Uneasiness, in viewing an ugly beast; but, the most discoloured, or disfigured, *fossile production* imparts *no Uneasiness* at all; or, in fact, no Feeling of ugliness.

SECT. II. CAPACITY OF SIGHT.

Arguing *physically* it must follow, that if *Sight* is the *weakest conscious* and *physical* Sense, it must be conveyed by the *smallest Motions*, or mental *Undulations;* and, it is easy, on this inference, to conceive, how *Sight* can be conveyed in a far *greater* number of *synchronous* intelligences, (*without confounding* each other,) than can be the case in Affections of the *Hear*, which is the next stronger Sense.

It is equally easy to conceive, how the *minuteness* of *Undulations* of *Colour*, enables them to *rise*, and *fall*, in *lesser times* than those of *Sound* can do: which enables us to receive *visual* Sensations in *far greater successive rapidity*, than we can receive *auditory* ones.

Musical notes *may* succeed each other with very great rapidity; but, there must be, so much *interval*, (however small it may be,) between every *two* notes, as to permit the *Undulation of the one to fall, before an Undulation is raised by the succeeding one.*

If the *rapidity* of *musical* notes be greater than the above, they will *not* be heard in *separate Succession*, but only in *continuity*, (as one *long Sound*,) in a similar way that a *rapid* consecution of the *seven Colours* produces *not separate* Sensations, but one *continuous* Sensation of *White*: both which conscious Facts appear naturally accounted for by this Hypothesis of mental *Undulations* which shews, that *during continuity* of *Sensation*, the succeeding *Undulations overtake, and tread upon, the preceding ones.*

Fortunately for the present argument, the *relative* capacities of *Hear* and *Sight*, for *rapidity* of *successive* Sensations, have been ascertained, nearly, by the experiment of Dr. Herschel, from which it appeared, that we can receive successive Sensations of Sound at the *rapidity* of about 160 Sensations in a Second; beyond which degree of rapidity the successive Sounds were heard *not* separately, but in *continuity*:—but Sensations of *Colour* were received, in separate succession, at *nearly double* that rate, or might perhaps be about 320 in a Second; beyond which, the visual Sensations became *continuous.*

This experiment is very important to the *Hypothesis* advanced, and from it we may infer, that *Undulations* of *Sound* require about *double* the time to *rise* and *fall*, that is required by Undulations of *Colour*; and, of course, that their *natural sizes* are *proportioned* to the *natural Times* they require.

SECT. III. PHYSICAL ANALOGY OF SIGHT.

Before I proceed farther in the consideration of *visual* Sensations, it may tend to illustrate the subject if we turn to contemplate the Process of *aqueous* or other convenient *physical* Undulations, such as take place in the Surface of any fluid; however inadequate these certainly are to afford similitude of mental Processes.

If, for instance, we observe the *Surface* of *standing Water* during *small rain*, we shall then perceive a *Surface* of *little circles*, that *rise distinctly*, *then blend*, and *die*; which Process may *somewhat* resemble the *tendency* to *blend*, amongst *many synchronous Sounds*; thereby producing, less or more, *confusion* in *Hearing*.——Or, if the rain be heavier, its impulses may rather indicate the greater tendency which synchronous *Tastes* have to blend, and confound each other.

Again, if we observe the *Water* during *rain* of the *finest possible degree*, we shall perceive a Surface covered with *delicately beautiful minute circles*, which *rise* and *die without blending*; their sizes *not enabling* them to invade their next neighbours.—These last I suppose to resemble, rudely, the *manner* of *visual Undulations*: and, their *minuteness* is the *reason* why they *die without reaching* farther than a *mere contact* with those around them.

These *aqueous Undulations* certainly are but momentary, and *mental* Undulations (which must be *vastly smaller*,) are supposed of proportionate duration: but, for continuance of Sensation it appears requisite only, that these should *not* be replaced by *different kinds*; but, *that they die*, and are *instantly replaced* by *others exactly similar*. This repetition being kept up so *rapidly*, *each similar succeeding Surface of Waves* shall be *strictly similar* to the *preceding set*, so long as the *same* visible *Object* affect the Eye; and we shall have a *continuous Sensation* of *one* Colour therefrom.

This supposition is farther countenanced by the minute *tremors* we often feel in *visual Sensation*, amounting almost to small *breaches* of continuity; such as, whilst reading print that is too *small* for convenient Vision; in which case we have actually a *minute Feeling* of *Undulation*.

Here it is proper to remark, for the benefit of those who may be inclined to consult such Processes, that I have often observed fine *rain* fall in drops at very *irregular* distances, which spoils the precision that would otherwise exist; but, when the thing first claimed my attention, I repeatedly observed fine drops of rain falling very near each other, at seeming *equal* distances, forming a Surface of Undulations, very regular, very *small*, and extremely *beautiful*. The like, doubtless, often happens, though I have oftener found it otherwise.

SECT. IV. PHYSICAL PROCESS OF SIGHT.

Arguing from the admitted physical Process of Sound, and the Vibrations of the parts of Sounding Bodies, (if there be any analogy between the Processes of Hear and Vision, in so far that both are produced by contacts,) I may suppose, that during *Vision* the *Retina* or *Choroides receives*, and is agitated by, the *different sorts* of rays of *Light* reflected from a picture: and, that the *Feeling* of *each Colour* is impressed by a *peculiar* impulse possessing *shape*, and *gravity*, exclusively its *own*. The difference in *gravity alone*, must occasion *agitations of different sizes*; which *unequal* agitations must form, in fact, a *Surface* of *Undulations* over the whole expansion of the *Optic* Nerve.

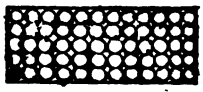
These, (or perfectly *corresponding* Motions,) will be conveyed along the *Optic trunk*, forming lines of *distinct* and *independent Vibrations*, until they reach the *inner extremity* of the *Nerve*, where they are *discharged.* Here we must suppose it probable they will form a *Surface* of *Undulations* perfectly *correspondent* to the impressions received on the *Choroides:* and these *Undulations* are thus inflicted upon the *spherule Mind.*

Now this supposed Process of *mental* Undulations (resulting from the *spherule* Hypothesis) is unequivocally supported by the Newtonian doctrine of the physical operation of Light upon the Organ of Vision, which I think teaches us, that Light consists of Particles which strike on the Eye, and as they differ in *velocity, density,* or *magnitude,* they produce in us Ideas of different *Colours.*

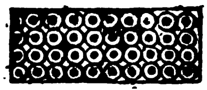
I shall have to argue, farther on, that during Vision the *Optic* Nerve must transmit, quite independent of each other, the millions of lines of *Vibrations* that form a *picture;* and, as the *Nerve so performs* this office, there can be no need of a *mixture,* or *diffusion,* of *Vibrations* over the *Brain,* to form a picture *already formed:* which mixture, if it do take place, must be supposed to occasion only *confusion,* and not distinct Vision.——In corroboration of this last inference it appears, that a confusion of the Sensations of *all* the Colours, deprives us of Sensation of *particular Colour,* and leaves the Sensation of *white;* and this equally so whether the rays be numerously mixed in the *Nerve* by the reflecting Surface of a Body called *white*, or, that the Undulations confuse in the Mind from a rapid consecution of the separate Colours before the eye.

Let us proceed to make trial of the *visual Sense* agreeably to this *Hypothesis* of mental *Undulations.*

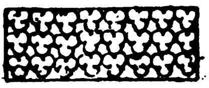
The immediate Conscious sufferings from Sight are *Colours only ;*
Now suppose mental *Undulations* of the Colour
Orange to be of this form - -



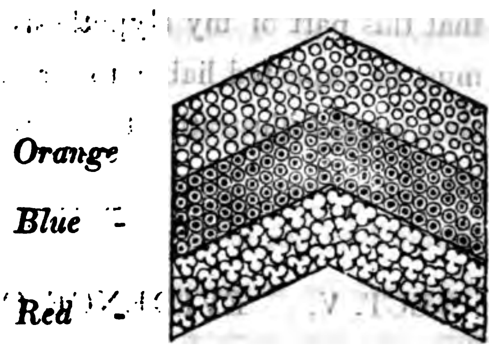
Blue thus - - - - - -



Red thus - - - - - -



And, agreeably to this, suppose we view a *Badge* divided into *three* distinct fields, consisting of these three *Colours.* Then, I suppose we should have, on the *Surface* of the *Mind,* a shallow *superficial Flexure,* upon the *face* of which would play, *a repetition of little Undulations,* perfectly similar to their own kinds : and, these *repetitions* would continue so long as the Eye dwell on the Object, somewhat in the manner *vaguely* represented here.



If this be supposed, it is easily conceivable, that there may be a *peculiar shape,* and *size,* (or some peculiarity,) belonging to the mental *Undulation* of *every sensible variety* of Colour : and, if so, the most complicated scene, (a *City,* a *Province,* or a *Battle,*) is as easily displayed, with all its *shades, and Changes,* as the simple figure shewn above.

Thus, if I look on a Tree, or the picture of a Tree, there will be a similar picture in the bottom of my Eye, as is proved by experiment; but, in my *Mind* - this picture will produce *Motions*; which *Motions* give me the *feeling* of *Colours;* and, as the *Motions vary,* I shall see *corresponding* varieties in the shades, or tints, of this Tree.

I do not (surely) suppose *Undulations* of *Colour* to have either the *Figures*, or *sizes, here assigned* for illustration. It is enough that they have *each* its *peculiar form*, or *size*, or both, adapted to the *nicest sensible difference.*———Farther, I do not for a moment imagine that this part of my Hypothesis is not, less or more, erroneous. It must be expected liable to error. It will be much if it be found a step toward illustrating this very ocult subject.

SECT. V. EVIDENCE OF VISUAL UNDULATIONS.

Here I shall support the Hypothesis of *visual Undulations* by the statement of a well-known *conscious Fact.*

If the *Eyes* be covered, *lightly*, we have *total absence* of *Vision*; but, if we begin to *increase* the *pressure* of the hand, *gently*, we shall then have a *beginning Sensation* of faint Light, not in an uniform Surface, but a Surface consisting of *Undulations:* and, as we *gradually increase* the *pressure*, these *Undulations* will *gradually increase*, both in *size*, and in *brightness*, until, by the time the *pressure* amount to *Pain*, the luminous *Undulations* will *equal* the *lustre* of the *Sun itself.*

Whoever will try this easy experiment shall find, that the *Undu-*

lations so raised, are every moment *changing* their *shape*, *increasing their size*, and also *increasing* their *lustre*, as the *pressure increases*: from which *Facts* we may make the following suppositions, especially when supported by all that has gone before.

1st. *Colour* is *physically* occasioned by *small nervous Motions*, with consequent *Undulations* in the *Surface* of the *Mind*; taking, naturally, *proportional times*.

2d. Because the *size* of *Undulations*, together with their *lustre*, *increases* with increase of *pressure* (even until pressure gives *Pain*), we may suppose, that *degree* of *Sensation* answers to degree of either *size*, or *acuteness*, of Motion.

This, which is an inference that embraces *Sensation in general*, is, precisely, what has been supposed throughout this Hypothesis: and, in this case of *pressure* of the Eye by hand, the *same size* of Undulations which might otherwise give an *obtuse* Sensation of *Touch*, is, perhaps, produced in *shorter times*, which *acuteness* imparts the *Feeling* of *vivid Pain*, together with a *Sensation* of *intense Light*.— Thus a *quick* Motion of a moderate size produces *Pain*, whilst a *quick* Motion of *small size* gives only obtuse Sensation; and, if so, a *quick* Motion of a *large size* should produce *Agony*, as happens during *excruciating Undulations* of *Touch*.

The *fiery Undulations* produced by *pressure* of the Eyes, (at any given degree of pressure,) are not either circles, squares, triangles, or of any other *definite shape*; but, they are *nevertheless Undulations*, possessing *peculiar* shapes, and constituting a *Surface* of *mottled Light*, and, I believe it is impossible, *by pressure,* to produce *Undulations small* enough to appear as a *Surface* of *uniform Light:* but if we could do so, it would not be at all in contradiction with the Hypothesis advanced, because it is only by *such means* of *minuteness,* and a *consequent rapid Succession,* that I suppose we can have proper Vision of *one coloured Surface:* whilst it is by the *over stimulus* of *gross pressure* by the hand, that we produce *sensible Undulations* instead of a Sensation of *uniform* Light.

SECT. VI. SIGHT AND TOUCH FROM ONE IMPULSE.

The *conscious Fact* that we produce *Undulations at all,* is of a most corroborating nature in regard of the Hypothesis. And the *Pain* from the *degree* of *pressure (increasing precisely* with the *conscious sizes* of the *Undulations,* and their *intensity* of *Light,)* is a *juxtaposition conscious* with *physical,* which claims our particular attention.

I have, all along, supposed, that the *grossest conscious Feelings* of *mere Sense,* were produced by the greatest *physical impulses,* and accompanied by the *largest Flexures* and *Undulations:* and, here, at length, in the Sense of Touch (measured by the Sense of Sight) we are enabled to detect, and establish, the *apposited Fact that it actually is so.*

It is of importance, here, to consider the Fact, that when we have pressed the *Eye* to a considerable degree of *Pain,* and produced *large Undulations* of the *brightest possible Light,* we may contemplate such *Undulations* as belonging to the *Sense* of *Vision;* and, otherwise, distinctly from this, as belonging to the *Sense* of *Touch.*—— In this last character, these Undulations are to be considered *merely* as *painful Undulations* of the *gross* Sense of *Touch;* and, by this glimpse of the *relative szies* of Undulations of this Sense of *Touch*, we may endeavour to *guess* at the relative grossness of its *largest Undulations*, which distort the whole Mind in *moments* of *sensual Agony:* which relation of Undulations, perhaps, we have no other means of guessing.———It is not, however, supposed that the *conscious sizes* of Undulations of Touch are the *actual Sizes:* it is only argued that there probably exists a certain proportion betwixt the *actual* Sizes of *Mental* Undulation of Touch and Sight, as we feel when we undergo the experiment of *mere* Vision, and of Pain from pressure of the Eye.

If we contemplate the Fact of *one physical Motion* producing *two* such different Sensations as *Colour* and *Touch*, (detected in the experiment on the Eyes,) it manifests such an evident connection *between Feelings* of *different Senses*, and opens such a view of the *apposited conscious* and *physical* operations of the Mind, as I am obliged to think, strongly evinces a physical connection between it and our Body.

To the above evidence, also, it may be proper to add here (as coming in with more effect than if remarked under its appropriate head) that harsh Sounds, such as from the sharpening of a Saw, give at once distinct Sensations of Hearing and of Touch, which last it does by what is called setting the teeth on edge; from which it appears, that Undulations of *both* the *fine* Senses are so small, as to play distinctly upon the Undulations of our grossest Sense.

SECT. VII. UNDULATIONS OF COLOUR HAVE NO *SENSIBLE* DURATION.

It is generally remarked, that very luminous Sensations remain some little time after the external Object is withdrawn; and, at first I inclined to suppose this a corroboration of the Hypothesis of Undulations; but, attention to the phenomena obliges me to think, that these *remainders* are in consequence *only* of irritation of the optic Nerve.

The experiment of Dr. Herschel having shewn that we can receive near 320 *successive* Sensations of Colour in a Second of Time, it follows, that each of these ordinary Undulations *rises and falls* in the *320th Part* of a *Second*.—But if each of these Undulations could take up a Second (or a *few* Seconds) it must be impossible to see 320 of them in a Second, and we cannot suppose Undulations of Colour to *differ* so greatly in *Size*, as that *any* of them can take up 300 times as much *duration* as any other.——We therefore can have no doubt but Visual *remainders* are the mere effect of irritation; and this is confirmed by the Fact that the more bright the object, and the longer continued, the longer (in general,) is the remainder.

Some think that remainders are felt in our other Senses; and, the rocking Affections felt after first coming on shore from a Sea Voyage, is mentioned as an instance;—but such effects are, doubtless, from the Nerves, for I think they sometimes endure several days.——

With regard to the Senses of *Taste* and *Smell*, I have little doubt it is the same, because I have been told by a Surgeon, that once, after the dissection of a Subject in a very advanced state of Putrefaction, his Organs were so irritated that he was, after returning home, compelled to suffer a cadaverous Odour, and Taste, which seemed to come from the food that he partook.

From all these *Facts* I think we may conclude, that Undulations of *Colour* are *extremely small* and *rapid;* and that a Sensation of *one Colour* is kept up by a *Succession* of *similar* little Undulations, with rapidity *greater* than 320 in a Second of Time; owing to which rapidity, one set of Undulations treads so fast upon the *preceding* set, that no *interval* or *tremor* appears; but a *Feeling* of *continuity* is preserved.

SECT. VIII. SIGHT MAY PLAY ON TOUCH.

Considering the Mind as a *Spherule, surrounded* by the *nervous System,* I do *not* suppose that *all* the *Senses operate* upon *all parts* of its *Surface.*—On the contrary, from the disposition of the Nerves, (as well as from its appearing necessary,) I am to suppose, that each *Sense* has its *allotted portion* of *Surface;* with, perhaps, the *exception* of *Touch,* as the *universal* bodily *Sense.*

Now, so considered, I have to remark a *physical analogy* which shows the *possibility* of such an arrangement.

If we observe a *Surface* of water, with *large Undulations* raised by the wind; and if, at the same time, there be *very fine* rain, (it has been already remarked,) we shall perceive the *little delicate Undulations* raised by the rain, *play* in *undisturbed repetitions* upon the *whole bosoms* of the *large Waves*, as correctly as though the Water were perfectly free from the impulse of wind.——In a similar way it may be very possible for *visual Undulations* to occupy the very *same portion* of the Mind's *Surface* that is *also* occupied, *synchronously*, by gross *Undulations* of the Sense of *Touch;* as we find to be the case when we have *both Light* and *Pain* from the *one pressure* upon the Eye.

If this arrangement be supposed, it appears necessary, only, that any *two* Senses whose *Undulations* are *nearly* of *equal* size, should have *distinct portions* of mental *Surface* to operate upon: else, we may suppose they might mix, and produce confusion of intelligence; though we know not if it would be so.

Here, *allowance must be made* for the great *variety* of *possible modifications* which *may exist* unknown (and even unsearchable) to us; such as may enable the Senses to operate with those *specific differences* which we feel. And, though the account here attempted is imperfect, and, no doubt, will be found in many respects erroneous, such imperfections, I hope, are not sufficient to overthrow the mass of Evidence that has been advanced throughout.

SECT. IX. INTEREST OF SUCCESSION IN SIGHT.

The Sense of *Sight*, as well as that of *Hear*, has its *Interest of Succession*, in a very considerable degree.

It is admitted, that bodies in *Motion* are more beautiful than bodies at *rest*.

A Woman, beautiful in face and figure, affords the most exquisite of *stationary visual Pleasures;* but, by the fascinating *Motions* of her *countenance*, and the graceful *changes* of her *posture*, she becomes, altogether, an object of *ineffable admiration.*

All animals, (with few exceptions,) are more beautiful in Motion than when at rest; and, amongst *inanimate* visible Objects, we take a *successive* Interest in the *following* parts of fire works, water works, and the like; independent of the absolute Pleasure received from *any one* part of these, separately taken, or from *all taken at once.*

The pleasure imparted by stage dancing of the best kind, is very great; but *so long* as we take *Pleasure* in *viewing* it, we must be assured we manifest our *Uneasiness*, and *Desire* for its *continuance.* It therefore must follow, that *alternate points* of dancing give *Pleasure* and *Uneasiness;* which is agreeable to the general account of Pleasure to be hereafter advanced; and this proves to us the *Interest* of *Succession* in sight, analogous to that which takes place in *hearing music.*

Every *posture* of the dancer, *separately taken*, might give some *little Pleasure;* but, if she performed her dance with *so long* an *interval* between each *two* postures, as to *destroy* the *connection* between the *steps*, it would prove a most *insipid* exhibition: in the very same way, that we should *lose all* the *Pleasure* of *music* if *all* the *intervals* were *lengthened*, four or five *times*, more than they ever are.

The *Undulations* of *Vision*, being so very *minute*, have time to *rise*, and *fall*, whilst the *quickest dancer* makes the *smallest visible Change* of *posture;* and, the *successive Pleasure* we receive from this exhibition is occasioned by the *tumbling* of visual points of the mental *Surface*, from *one* shape of *Undulation* to the *next* shape; analogous to the tumbling which gives *Pleasure* in *hearing music;* or, to the tumbling of the Sense of *Touch* during the sensual Pleasure of *walking;* or, lastly, to the tumbling of the same Sense of *Touch*, in *pronouncing* the words of *soft flowing* language.

In thus alluding to the supposed partial Undulations of the *Mind's Surface*, I have called it *tumbling*, as conceiving it a sort of ebulition; and hope the term is applicable, though certainly not elegant: but I beg to apologize generally (though thus late in so doing) that I have, in many cases, thought it best to illustrate in simplicity of phrase; and in all, by familiarity of incident: my aim, throughout, being to ground the Hypothesis on the most ordinary and convincing Facts, rather than upon extraordinary or surprising ones.

SECT. X. REFLECTION ON THE SENSE OF SIGHT.

While contemplating the effects of the Sense of *Sight*, our gratitude is strongly excited towards the Omniscient and Merciful Creator who has so wonderfully contrived it.

By its peculiar organization, we can receive both continued, and ever-varied, useful intelligences, *appositied to varieties of Pleasures;* and yet, *free from* any considerable *visual Pain*. Thus, admirably, it enables us to *guard* ourselves for the present, *provide* for the future, and *explore* the probably endless avenues to Knowledge!——A most happy arrangement for the creature who is to use it, because, (amongst other reasons,) the Eye must be continually *open* to *all* visual assaults, during vigilance. The Prince, as well as the Peasant, must take visible Things as they occur, or confine himself to his dwelling, and thus vastly curtail *visual utility*, and be deprived of one of the greatest *Pleasures* that either Peasant or Prince can enjoy; that of contemplating the various beauties of visible *Nature*.

No Man can move far without viewing *unseemly*, as well as sightly Objects; and, if the Motions or Undulations of *Colour*, were so *gross*, or *acute*, as those of *Touch*; or, only as those of *Taste*, the Sight of a disgusting Object, besides *confounding intelligences*, would poison happiness as completely, as a dash of *asafœtida* in a portion of sweet food.—But fortunately, as the *Fact is*, the most fastidious Eye may be delighted with a general, or particular, survey of scenery; though here, and there, animal and vegetable *deformity*, and *dissolution*, make small *distinct features* in the picture.

This obviously happens because the *uneasy Motions* from a *particular* visible Object, is so weak and trifling in the *mass* of *Motions*, that it is overcome or neglected in the *general complex state* of the Mind; the *estate*, or *general tone* of which, (it has been already argued,) is always a *mean* of *all present Pleasures* and *Pains*.

Here, I think it well to notice, what will be farther argued, that we must discriminate, in all cases, between Sensations *as such*, and Sensations *associated*: and, every thing I have *here* advanced concerning their Powers to move the Mind, extends merely to their *absolute sensual* Powers, which appear in *all* cases exactly proportioned to the *degree* of *physical stimulus*; the *Pleasures* and *Pains* from which may, however, be augmented in the *absolute* Interest of *Succession*.

The *finer Senses*, (besides their other utility,) being the advanced guards of the grosser, to warn them from approaching danger, must be *continually* open to agitation; and, if the Motions and *Undulations* of the *finer* Senses, were so large as those of the *grosser*, their agitations must not only tend to continual *confusion* of Sense, but the nervous medium would be as soon *exhausted* by *seeing* and *hearing*, as by *walking*, or nearly so. But, the *minuteness* of the Motions of the *finer* Senses, explains, *(physically,)* why they affect the Mind so *slightly*, and *distinctly*; and, why the *nervous* medium is hardly ever exhausted by supplying stimulus to these Senses.

Of the *two* fine *Senses*, *Sight* being consciously and physically *weakest*, and most indispensibly on duty, is least capable of paining us by its Motions; and, it may be supplied by the nervous Medium *longer without exhaustion*, than can the Sense of *Hear*, and *much longer* than can that of *Touch*.

The whole of this view, like every other we can take of the arrangements of infinite Wisdom, must excite our adoration of the infinite goodness of the Contriver.

SECT. XI. *THE APPEARANCE OF COLOUR* IS COLOUR.

In this place I deem it requisite to animadvert upon a distinction made by Dr. Reid, concerning *Colour*; because, if passed over, it may be thought to affect my position (in Sect. VIII. Chap. III of the Discussion) that *we do not see Colour*.

Dr. Reid calls the *Sensation* of Colour, only the *appearance* of Colour; and makes *Colour, itself*, to be *strictly* the *quality* or *cause*, in the external visible Object. But I must object, that (however the *name* of the *Sensation* has been confounded with the *Power* or *Quality* of the Object,) *Locke*, himself, (in agreement with Descartes) is explicit, that it is the *Sensation* which is meant by *Colour*, and *not* the *Power* in the visible Object.

He says (Book II. Chap. VIII.) " Secondly, Such qualities *which in* " *truth are nothing in the Objects themselves*, but *Powers* to produce " various *Sensations* in us (*i. e.* by the bulk, figure, texture, and mo" tion of their insensible parts) as *Colours, Sounds, Tastes*, &c. These " I call Secondary qualities."

Here is no possible opening to suppose that Locke held the *Sensation* to be *only* the *appearance* of Colour, or that *Colour itself* is a quality in the visible Body.—He says, " such *Sensations in us, as Colours,* " *Sounds*," &c.

Perfectly agreeable with this is the doctrine of *Berkeley*, who wrote so particularly, and so well, on this Subject.———He always insists that *Colour* is *in* the Mind, without thinking this new, or singular.

This appearing so clear, I am obliged to think that Dr. Reid's distinction (that the *Sensation* is only the *appearance* of Colour) is no better than a *misnomer*: for, as to distinguishing between *Colour in* the Mind, and its *physical cause*, that was already done by his predecessors; so that the distinction of Dr. Reid is, merely, calling that *Quality* of the visible Body by the name of *Colour*, which Locke and Berkeley justly esteemed to be *only* the *physical cause* of Colour.

I have a very deep sense of the weight of erudition here opposed; but must, nevertheless, rest assured in my position that *we do not see Colour*, taking the term *Colour* in the import established by *Descartes, Locke,* and *Berkeley.*———But (what is the *important Object* of *Philosophy in* this *Question*) I particularly insist, that the *Sensation* in question is *extended in the Mind;* and that its *Extension* is not an *Idea* suggested by the Understanding *consequent* upon (or *after,*) the Sensation; but is *primarily felt.*——This having been demonstrated in the Discussion (Chap. III.) it cannot affect the *important consequences,* whether we chuse to call a *visual Sensation* by the name of *Colour,* or only by that of the *appearance* of Colour.

" Dr. Reid is of opinion that the vulgar always mean to express by " the word *Colour, a quality,* and not a Sensation."———Granted, but he here overlooks the ambiguity of the term *quality;* because the vulgar *do* not by *quality* mean a *Power* to affect us; but only *a thing sticking to* the Object.———Thus when a Clown looks at any *Object,* the Colour seems, *to him,* as it were, *a skin* which covers it;—and the Notion of a *cause,* or *Power,* in that Body, *never enters his head.*——The vulgar notion of *Quality,* therefore, lends no strength to Dr. Reid's position.

Dr. Reid says—"The name of *Colour* belongs, indeed, to the cause only, and not to the effect."——But as Philosophers have antecedently established the *contrary* of this, in Philosophical reasonings, what good can attend reversing their *terms*?—And, as to the vulgar, nine-tenths of the human race, when they look at Objects, never think of *any cause* of *Colour,* yet perhaps it would be too much to say, that so many Millions of Men are ignorant of *Colour,* since they know Blue and Green as well as their neighbours.——I think (independent of the decision of Descartes, Locke, and Berkeley) it must be the *general Sense* of *all Classes* of Men, that it is not the *cause* of Blue and Green, but *Blue and Green, themselves,* that *are Colours*; though the *vulgar* think these *adhere* to the *Object*, whilst the *intelligent* know that they exist in the *Mind only.*

Professor Stewart says,—"The *Sensation* of Colour never forms "one simple Object of attention to the Mind like those of Smell and "Taste; but every time we are conscious of it, we perceive at the "same time Extension and Figure. Hence it is, that we find it impos"sible to conceive colour without Extension; though certainly there is "no more necessary connection between them, than between Exten"sion and Smell.——From this habit of associating the two to"gether, we are led also to assign them the same place, and to con"ceive the different Colours, or (to use Dr. Reid's language) the *ap"pearance* of the different Colours, as something spread over the Sur"face of Bodies." Upon this remark I must observe, that I have already shewn, (in Sect. XVI. Chap. III. of the Discussion) that *all* our Senses (with the exception of that one which is a mere curtailed *subordinate to Taste*) do *primarily* betray Extension; *and therefore Sight is not peculiar* in this respect, but is *analogous* to other Senses, though we have *no Interest* to make us *attend* to *Extension* in *Sound* and *Taste*, and therefore *usually overlook* it.——And I must add, that though *Colour*, and the *Extension* of Colour, are two very different Feelings (or *Considerations* in the Mind,) I am obliged to think the connection *not associated*, but *necessary*, since it is *impossible* for the *one* to *exist without* the *other*. It is past dispute that the very *first* time a man opens his Eyes upon *Colour* he *must feel* it *extended*; and this he may do without any Notion of any external cause whatever. In short, Extension is no less than an *essential quality* of *Colour*, as truly as Extension is essential in *Body itself*; and it certainly is not the *effect* of *habit*, or *experience*, to *associate Extension* with *Colour*. I therefore cannot agree with Professor Stewart that it is "from the *habit* of *associating* the two together, we are led to assign "them the same place."—It is not *us* that assign them the same place, because they *actually exist* in the same place, that is in the Mind.

Here if (for the argument sake) we, for a moment, suppose with Dr. Reid, that "the name of *Colour* belongs indeed to the cause only," —this will not bring us a bit nearer to *seeing Colour*; since Dr. Reid surely never meant to say that *we see the cause*; and yet it must be allowed we see *something*.———It therefore remains, (even from *his own* argument) that the *only thing we see is Extension*.

I cannot help thinking that nothing could have swayed Dr. Reid to believe, (or Professor Stewart to assent to,) the position against the existence of *Colour itself* in the Mind, except a very strong *prepossession* that *nothing extended* can exist *therein*; and this position has led *Dr. Reid* to a farther oversight which I cannot pass over, because a proper attention to it may convince us how much the most acute Judgment is foiled in the attempt to deny our *primary Feelings* from *extended impressions*. I must therefore solicit attention to what follows.

Professor Stewart (in his Elements, Note P.) says—" Dr. Reid "has justly distinguished the quality of Colour from what he calls "the *appearance* of Colour, which last can only exist in a Mind."

———and Dr. Reid, himself, says——"The name of *Colour* belongs "indeed to the cause only, and not to the effect."———Here then, we have it, unequivocally, from Dr. Reid, that *Colour* is *a quality* in an *external Body*,—and the *Sensation* occasioned by it in the ***Mind*** is ***only*** the *appearance* of that *external* quality!!!——Would any one suppose that such doctrine comes from the illustrious defender of *Non-resemblances*:——the founder of that School which ridicules *Locke, Berkeley*, and *Hume*, for supposing that our *Ideas* of *primary qualities*, are *resemblances* of those qualities?

What is the *appearance* of any Thing, but a *resemblance* of it? Now, as Dr. Reid says, "the name of *Colour* belongs to the *cause* only;" but "the *appearance* of Colour" is the *effect* in the Mind, he thus, in the most undeniable terms, asserts a *Sensation* in the Mind to be a *resemblance* of an *external quality* of Body.

An *appearance* of any Thing means the *highest degree* of *resemblance*; or, that *precise resemblance* of it, which makes it *seem to be* the Thing itself.———Now I venture to assert, that *Locke* never went farther in *his* error concerning *resemblances*; and, if this oversight of Dr. Reid were received literally as *matter of Fact*: it could not fail to *re-establish* the *Ideal Theory*, and all that superstructure of error which it has been the glory of Dr. Reid to overthrow.

I leave it to the candour of those concerned, whether they will support such a position, as, that *Sensation* in the Mind is the *appearance* (that is the *most perfect resemblance*) of any *quality* or cause in an *external* Object: but if this were possible, or (what has the same immediate consequences upon opinion) if they judge it fit to adhere to such doctrine as *appearances*, while they *reject resemblances*; I shall nevertheless maintain, that the *appearance* of *Colour* is as truly *extended within the Mind*, as the *quality*, or *cause*, is *extended without.*

Here let me say, that in having frequently ventured, in the progress of this inquiry, to remark upon the doctrines of Professor Stewart, I have conceived too high an opinion of the *Man*, to believe that the *Philosopher* will require any apology.——In asserting the dignity of human nature, by thinking for myself, I have never lost sight of the vast and irrecoverable distance which education and other external circumstances have placed between us as individuals: nor can my rude Speculations, (even were they proved in some instances right) accuse me of the presumption of setting myself up to *Know*, though, (deeming the happiness of mankind at stake,) I use the undoubted right which every man has to *question*, and *object*.

He who is highly gifted to rear the noblest of Sciences, and deck its yet imperfect form in irresistible beauties; whose capacious Intellect embraces, at once, the deepest truths, and most luxuriant shoots of intellectual phantasy, fascinating Mankind to their amelioration, must possess that elevation of Mind which will induce him to tolerate, with undeserved lenity, the rude conceptions of those *who cannot chuse but feel*, though not fated to breathe in the higher regions of intellection.

CHAPTER XIII.

A RETROSPECT OF THE SUBJECT ADVANCED.

The *spherule Hypothesis* now stands confessed; and is the result of a view of that *constant Order*, in which *all* mental Affections, both *general* and *particular*, are governed.

It now remains, for those who are competent, to weigh and pronounce, whether it carries probability; and, in so doing, I hope it will be considered just, to bring this Hypothesis of the *Mind*, into fair comparison with the *Hypothesis* we have of *Body*; with which last our acquaintance is thought to be so much more intimate.

When we (consequent upon a Volition,) move any heavy Body out of its place, we are at least as certain that *Mind resists*, as that *Body resists*.——The next question then is, whether, or no, *Mind* and *Body* resist by *common* Process? and the affirmative of this (as well as the *Extension* of the *Percipient*) has, I trust, been demonstrated in Chapter III. of the Discussion.——The only remaining point is, by *what Mode*, and *particular* Operations, an Extended Mind can possibly co-operate, with its proper Body and external Objects? And to illustrate this, I have herein submitted the *Spherule Hypothesis.*

Here I intreat the candour of its judges to consider, whether any thing is thus presumed in regard to *Mind*, more than has *always* been done in regard to *Body.*———Philosophers from the very earliest ages, down to Newton, inclusive, have speculated upon *Matter*, as composed of *solid Atoms;* but Father *Boscovich*, and other eminent men of our day, aided by the progressive light of experience, have at length thought themselves warranted to set forth, that *Bodies* are made up of *only* little *unsolid Spheres* of attraction and repulsion.

Now I ask, which of these Philosophers, ancient or modern, have ever *seen*, or *handled*, either a *solid Atom*, or a *Sphere* of *Repulsion*? —If none of them have done the one, or the other, it follows, that *all we know* of even the *Figure*, and *precise Mode* of *Operation* of primary Matter (without at all meddling with its *Substance*) is *purely Hypothesis*: and what is there unphilosophical in deducing the conception of a *percipient Sphere*, from a series of *Facts;* any more, than in supposing a *material Sphere* from a series of *Facts*?

It would be highly unjust to impute to the present Hypothesis of *Mind*, (any more than to *Boscovich's Hypothesis* of *Body*,) the idleness of speculating upon *Substance*; and equally unjust to deny that the Mind (as a *reality*) is as legitimate an object of inquiry as Body itself. The *Shape*, as well as Substance, in both cases alike, is hid from Sense; and we must judge of what each one *is*, only from what it *does;* which I think we do in various cases which yield, in their *practical results*, pretty good evidence of our being right.

Thus much I hope may be allowably advanced for the *nature* of the *Hypothesis*; but as its *particular* truth, or fallacy, is another question, I have only to request of those who may pronounce upon it, to weigh candidly all the Evidences in its favour; and against these to put, any solid objections which may be brought against it: after which if either side be found greatly preponderating, on that side must be probability. To suppose that it is not liable to objection, because they do not appear to me, would indeed be short sighted; but, I am obliged to think they ought to be many, and weighty, to equalise the Scale, against the *variety*, *peculiarity*, and *correspondence*, of that series of Facts which have been offered.—— When also I consider how poorly it has been in my power to call arguments to its aid, and how differently it must have appeared in the hands of any one to whom the Stores of Science have been unlocked, I cannot help thinking that it lies within the pale of *rational* belief.

The Evidences which yet remain to be brought forward will, so far as they afford a physical explanation, be found in correspondence with what has gone before; and will bring a considerable accession of strength to probability.

CHAPTER XIV.

OF THE CONSCIOUS AND PHYSICAL PROCESSES OF SENSUAL PLEASURE AND PAIN.

SECT. I. SENSUAL PLEASURE.

THE view which I am now going to take of Sensual *Pleasure* and *Pain*, agreeably as well to *Consciousness* as to the *Hypothesis*, will be found, perhaps, very different from any broached opinion on this subject. I am, however, encouraged to submit it for consideration, because it so exactly appears to embrace *conscious Facts*, together with the *physical Operations* of a *flexible Spherule*.

Sensual Pleasures may be considered as *of two Classes*; and I therefore divide them into *absolute* and *comparative*.

Absolute sensual Pleasure is a Happiness produced by particular *Motions* in the *Surface of the Mind*, which Motions *agreeably reduce* any *Tension* of Mind that arises from the *Nervous Motions* of animal *appetite*, as for *fruit*, *music*, *beauty*, and the *like*.

Desire for any of these arises, *always*, from "*a present Uneasiness*," which is a *degree* of *Pain*: and this Pain is strong, exactly in proportion to its *nervous* demand, which *occasions* the Mind to *distend*, until it be reduced by *cessation* of the *Pleasing Motion* in question.

Comparative sensual Pleasure is the mere *state* of *lessened Pain*; if this be produced by such a Motion as would not, in *itself*, from a state of *mere appetite* produce absolute Pleasure.—Such mere lessening of great Pain, especially if the steps be *great* and *sudden*, (by putting us in a better state than before,) produces a momentary Feeling of Pleasure, which is not absolute Pleasure.—It is very fleeting; and, in *fact*, seems partly owing to *Memory*, or a *comparison* of the *present* with the *past*.

The Motions of absolute and comparative Pleasure, I should take to be considerably different in *particularity*; because, though our appetites are *often* satisfied with absolute Pleasure; yet they *often* are so *without any Pleasure* at all: as when our *Uneasiness subsides insensibly*; and, when we take nourishment barely passable, or even nearly loathsome.

SECT. II. PHYSICAL PROCESS IN SENSUAL PLEASURE.

If we wish any absent Sensual Pleasure, this Desire arises from "a "present Uneasiness," because absent good (however generally acknowledged good) is so in *our view* only if, and so far as, we are *uneasy* in its absence; and this *Uneasiness* in the present case is found to arise from a nervous stimulus, acting in some *particular* though unknown way, against the Mind.

If this Desire for Sensual Pleasure be gratified with a full feast; we shall find the Pleasure endure just so long as the nervous *Uneasiness* which demanded it remains: beyond which, we shall *desire it no longer.*

When the *operating desired Object begins* to *lessen* the *Pleasure* it has afforded, it is because the *Uneasy* Motion, which the Nerve had *previously* inflicted on the Mind, is *now beginning to lessen.*

When the *Motion* from the *desired Object wholly ceases* to be *pleasant*, it is because the uneasy Motion of the Nerve has *previously wholly ceased.*

From these (which are conscious *Facts*) it appears, that what may be called *a state* of *absolute* Pleasure, is *necessarily* produced *not* by *a continuous* Motion, but by *alternate Motions*; whereby an Uneasiness and Tension of Mind, *kept up* by *one Motion*, is agreeably *reduced* by *another.*

If this is so, the *strongest Desires* must be raised by the *strongest uneasy* Motions; and the *lapsing* Motions that can *reduce* them, should produce the *strongest* sensual *Pleasures.*——Agreeably with this physical argument we certainly find, that our strongest, or most interesting, sensual Pleasures, (those which satisfy our strongest nervous *Uneasinesses,*) are produced by the strongest nervous *variations.*

Here we must be careful to avoid confounding *Desire* with the *Uneasiness* that excites it.——*Desire* has been called a *Passion*, but it is merely an *articulation* in conscious Processes.

Desire, like Will, has *always a definite Object* consciously known in the *Mind* itself: but we may feel *Uneasiness* some time before we discover *what* is likely to relieve it.——A Man is often truly uncomfortable, and yet, though life depend upon it, he could not tell *what specific Thing* would relieve him. Here he has *Uneasiness*, but certainly no *definite Object of Desire.* At *length* he thinks of some definite Thing, that he believes would ease him, and instantly he desires to have it.

It may be said, that *all this time* he has Desire for Ease; but this I do *not admit*: and when he has Desire, the *Pain* and the *Desire* for *Ease* are still so *distinct*, that the one is a Suffering, and the other really an articulation which divides Feeling from Action; or a species of Volition which, not being able to move, stops at wishing.

During paroxysms of Pain, I think, a man is at some moments so fully *occupied* by *Misery*, that the very *Memory* of Ease, is for the *moment banished*; and he *cannot* then have a Desire for Ease: he *thinks of nothing* except Pain.———During Pain, in general, I think, the Mind is often so interested by it, as to *forget*, at intervals, all thought of relief.

Desire operates as an indication from our wants to their Object;—as *Will* articulates between Perception and *Action.* With regard to any thing expected to produce *Happiness*, it is *Desire*, and with regard to Action to obtain Happiness, it is *Will.*

Should it appear questionable, (as I confess it did at first to me,) how an alternation of *two* Motions can produce a *state* of *absolute* Pleasure, seeing that one of them is supposed to produce *Pain*: and farther, should it appear contradictory in this place, that I have asserted *absolute* sensual *Pleasure* to exist during an increased occupancy of Mind, whilst yet, sensual Pleasure is allowed to produce a *relaxing* consequence. Under this doubt, I recommend attention to the *conscious* Process within ourselves, which I think will solve the difficulty agreeably with the Hypothesis.——This experiment will prove to us, that a *state of absolute* sensual Pleasure is *not a simple* Affection; and, what is more, that it is *not a continuous* Affection.

The precise conscious *Fact* appears, that the Mind (in unison with the Nerves) first *distends* under an uneasy Motion, raising Desire; —and then, *relaxes* under a pleasant Motion, conveyed by the Thing desired.——But this *pleasant* Motion is *not continuous*: and, *being now present*, it *prevents* the *uneasy* Motion from being continuous.——The consequence of this must be, an *alternate repetition of each* Motion, with more or less rapidity, each giving way to the other: but the *relaxing* Motions of Pleasure are either slower, or *some how more reducing*, than the Motions of *Uneasiness*; and thus give *prevalence* to the *Sensation* of *Pleasure*.—Now, though it becomes impossible that the pleasant Motion can exist *continuously*, yet the repetition is so frequent, especially in the *finer* Senses, that we *heed not* the intervals, though we can detect them if we strictly examine ourselves. It, however, requires considerable Attention, in many cases to perceive, that sensual Pleasure is not a simple continuous Affection.

Among the multitude of such Processes, that of *drinking* may serve as an instance of the *alternation* during a state of Pleasure.

Every gulp in a draught is an *instance* of pure *Pleasure*; and every *interval* gives *return* of *Uneasiness*: but the thirsty Man, who has swilled a quart in one draught, perhaps never reflects after it is over, that he has been truly *uneasy twenty times* during the delicious refreshment.

Should any one question that he really was so, I imagine they will grant that at the *beginning* he had *Uneasiness*, and that he had *Pleasure* in the *first gulp;* but had this satisfied him he would have *stopt;* or, if he went on he would have felt *no Pleasure*. But *Uneasiness* pressed again, and he took a *second gulp;* and he repeated this, (and felt Pleasure in the repetition,) just so long as *Uneasiness stepped beyond* the *last gulp*, and no longer.——It becomes past dispute that a *state* of *absolute* Sensual Pleasure is here an *alternation* of *two opposite* Motions in the Mind; and I think a distinction becomes proper, between *pure* Pleasure, (or that of the *moment*,) and what I have called a *state* of Pleasure, which is induced by the alternation of *pure* Pleasure and its Appetite or Uneasiness.

In the operations of all the Senses this *alternation* is easily detected, except perhaps in that of *Sight;* and I think it must fully appear that if the *alternate* Motions of the Pleasures of Vision are scarcely perceptible, it is only because Sight is produced by the *smallest* Species of *physical* impulses, therefore, conveyed in the *most rapid* succession of Sensations. Owing to this rapidity the alternation is so very minute, and *quick*, that an *Uneasiness desiring* to look on *beauty*, and the *pure* Pleasure in *beholding* it, *seem* but *one continuous* Sensation; just as we *see continuously*, though our Eyes be shut every instant.

Here I shall offer another instance of a *state* of absolute Pleasure, which is all that appears requisite to illustrate this matter.

When an active Man has rested long, his *Body* inflicts upon his Nerves, and his Nerves upon his Mind, *uneasy Motions* which raise a Desire for exercise; and if he walk he shall, during some time, have independent *absolute Pleasure* in *walking;* even if his Eyes be bound, and external objects excluded.

Every *step* here gives *pure absolute* Pleasure, though as pleasure it is of the very *weakest* kind; but if the first step satisfied the *Uneasiness*, he would walk no more for the Pleasure of *walking:* here, however, his Uneasiness raises Volition to a *second step*, which brings another moment of *pure* Pleasure; and the Man will walk for *pleasure* just so long as the *Uneasiness will outstep* his foot, and no longer. Thus, a *state* of absolute Pleasure in walking, is an *alternate* repetition of *pure* Pleasure and *Uneasiness.*

All Men must be *conscious* of the *Uneasiness* during a *state* of *Pleasure*; and the only thing wanting is, *reflection* upon the operations of the Mind, *after* the Process be *over;* which, however, Men are not apt to trouble themselves with in the hurry of Life.

Here, in the *Volition* to *step*, to *swallow*, or to prosecute any sensual Pleasure, we indisputably detect, if not the *identity*, at least the very *close* specific connexion, betwixt *Desire* and *Will*, as an *articulation* between Feeling and Action.—The Man who *can step, wills* to *step;* but, under the very *same* Uneasiness during a *want* of *exercise*, if his legs were *tied* he would only *desire* to step.—Desire then, is but *Will withheld;* and the Mind, though it cannot move the Body, is actively disposed in *both these moods.*

SECT. III. PLEASURE SUCCEEDS PAIN.

If the account here given of *sensual Pleasure* be found, upon the whole, just, it becomes of importance, in being directly opposed to the Theory of sensual Pleasure advanced in the Doctrine of *Vibrations.*

Dr. Hartley says, "The doctrine of Vibrations seems to require, "that each Pain should differ from the corresponding and opposite "Pleasure, not in kind, but in degree only; i. e. that Pain should be "nothing more than Pleasure itself carried beyond a due limit."

If this proposition is true it must follow, that if a Man be placed in a state of mere *indifference*, he *cannot* possibly *gradually* arrive at a state of *Pain, without first passing through a state of Pleasure*; because we are told, "*Pain* is only *Pleasure* itself carried *beyond a due* "*limit.*"—Thus a Man *must* feel the *Pleasure* of *Hunger*, before he gets to feel the *Pain* of Hunger: and must, in the same way, feel the *Pleasure* of *going without* any thing he *desires*, before he can feel the *Pain* of going without it.

But, for my own part, I never could find at what point *Hunger*, or *Thirst*, gave any *sensual Pleasure*; though I have often *wished*, and *chose*, to be hungry.——What I always feel is, that our constitution is *not possibly susceptible* of *Pleasure*, until the *Uneasiness* it relieves has *previously* occurred.

To feel Pleasure, it is *first* necessary to have an *absolute Uneasiness;* and then, a *Desire* for the *Pleasure* that *can relieve it.* And if a pleasant Sensation *suddenly* assail us, unthought of, *it must bring* an *Uneasiness*, and Desire for its continuance, *the moment it present* *itself.* If it do not, then, whether it be *fruit, music,* or *beauty,* we shall care no more for it, than for *smoke.*

If each Pain is *only* the opposite of its corresponding Pleasure, then I ask, what are the *corresponding Pleasures opposed* to *particular* Pains, and Tortures, of a million of different kinds? I know of only *one state properly opposed* to *all of them;* and that is *mere Ease;* which, I do not hold to be *any absolute Pleasure* at all, but only mere absence of Pain.——Pleasure is a more *vivid* state than that of mere *Indifference;* and I have argued why it differs from Indifference, as *truly* as it does from Pain itself.

When a man has had Pleasure in the *first gulp* of a full goblet, and is *uneasy wanting a second gulp,* I ask whether this Uneasiness *is only the Pleasure of the said first gulp carried beyond its due limit?* I believe no one will answer in the affirmative; and if not, I then ask, is the *Pain of Thirst* only the *Pleasure* of Thirst carried beyond its due limit; I scarce think that any one will contend for *Pleasure* in *any* stage of *Thirst.*

That which most approaches to Pleasure in *any beginning* sensual *Pain,* I think, is mere *itching;* but though I have heard much in praise of *scratching,* as a pleasant cure for this malady, I never heard of any one *in love with itching* for its own sake; and it would seem rather prevalent among all ranks, to palliate it as an Evil, on every convenient occasion whenever it annoys them.———This same ever fashionable *Pleasure* of *scratching* (being a *luxury* within reach of the vulgar) affords frequent proof of its *alternate* Process.———Nay, we can analise the Process, and shew its component parts; for if, during the *Pain* of *itching,* we press the part, it will often produce *Ease* (which is a *neuter* State) merely by *stopping* the *Motion* of *Pain*: but this will produce *no Pleasure* because the *alternate* Motion of *pure* Pleasure is *wanting*: and, to make *an absolute banquet* of it, we must introduce variety.

It is but due to Dr. Hartley to advert, that whilst I use the terms Pleasure and Pain in the extensive import of Mr. Locke, Dr. Hartley confines that of Pain to *vivid Pain*: but then, by the same rule, he must confine the term Pleasure to *vivid Pleasure*: and according to him, every particular *vivid Pain* must be a particular *vivid Pleasure* carried *beyond* a due *limit*.

SECT. IV. UNEASINESS IS THE ORDINARY STATE.

The matter in the present Section might, perhaps, be more properly advanced after having shewn that *sensual* and *intellectual Pleasures* are physically produced by analogous Processes: but it may, however, be as well to add it to the foregoing arguments.

The Hypothesis which makes Pain to be, " nothing more than " *Pleasure itself* carried beyond a due limit," supposes that Pleasure is the ordained and *ordinary state* of Man; and that Pains are only *exceptions* to the general *rule* of *Pleasure*.———But the very opposite of this is notoriously the *ordinary* state of Man. His condition is to be ever moving in search of *something*, which something he *must desire*: and all Desires *point* to objects which are to *relieve present Uneasinesses*.

Even when *Uneasiness* assumes so mild a tone as that of mere *cravings*, still *it is Uneasiness*, and *spurs* us on, till gratified.——Each day, and every hour, and minute, furnishes a *Succession* of these *Uneasinesses*; some great, and some little; and the *Court*, the *Theatre*, and the *Brothel*, are filled by the very same *general cause*, which fills the *Church*, and the *Cell* of the *Devotée*. All the *votaries* carry with them *some Uneasiness*, which they desire to have relieved.

Surely then, the *ordinary state* of Man is not that of *Pleasure*, now and then accidentally *overcarried into Pain*. On the contrary, it is a continual variety of *Uneasiness;* wisely, no doubt, designed to keep him on the move after Knowledge.

Man ever flies from the *uneasy state*, to *any* other which he *thinks* will be *more easy;* and thus is *Pleasure* a *bait*, which he follows and only *occasionally reaches*. The Object that is expected to afford it, is indeed often attained, *without tasting* the expected *Pleasure;* and even a *state* of *Pleasure* proves to be, at best, an *alternation* of *Uneasiness* and *pure* Pleasure, until *languor closes* the enjoyment.

Thus during human life the moments of *pure* Pleasure are comparatively *few*, just enough to tempt us into *continual Action*, though we are often cheated of our expected reward: and thus it happens, that the *intellectual Pleasures* of *Anticipation* are the *longest*, most *certain*, and perhaps the most numerous of *any*.

These arguments for the *ordinary uneasy state* of Man, I trust will be admitted.———It is indeed not uncommon to hear people say they are happy or content; and such language is allowable in social converse: but, it is past dispute, that a Man *content* in a *philosophical* or strict sense, will *never stir* a foot, *nor turn his head*, for *any* thing in Nature.

Complete Pleasure infallibly *arrests* the Mind, and thereby the Body; preventing all Action. The term Content is received, in ordinary, to signify a mean forbearance, or a *tolerable state*; but its strict import is that of *perfect* satisfaction or *Happiness:* and I may safely aver, that if a Man be content during a thousand years, he will *never* once *voluntarily* move a muscle of his Body *to seek any Thing.*

But, contrary to such quiescence, all Men, during vigilance, are *ever upon the seek* for something; which *Fact* evinces that *Uneasiness* is the *ordinary condition* of *Man:* and this overthrows the Hypothesis, that " Pain is nothing more than Pleasure itself carried beyond a " due limit."

The *uneasy* state of humanity, above argued, is surely that state which we *ought* to find it, upon the almost universally received belief that we are placed on Earth as a state of discipline and probation for another, wherein *permanent Pleasure* may be hoped as an ordinary state, in which we shall wish no change.

SECT. V. PLEASURE CHANGED TO PAIN.

If the *nervous* Motion, and consequent *mental* Motion which conveys Pleasure, be continued *after* the previous Motion of *its Uneasiness* has *wholly* ceased, it will then convey a Sensation with *nominal* indifference: and, if it be yet longer continued, or if it be *too strong*, it will inflict a Sensation with *Pain:* upon which the

Mind, which has been relaxed, will *now again begin to distend* with Uneasiness.

Suppose all this had been *Uneasiness producing* a *Desire to eat Turtle*, and that it has been gratified until the Man can eat no more with *Pleasure*. If now, to please his host, or patron, he be induced to eat on, he will still be very sensible that he *eats Turtle*, though his nerves convey neither pleasure nor Pain. But if, when cloyed, (not filled,) he be forced, at point of sword, to eat *beyond* endurance, he will not be less, but much *more* sensible that he *eats Turtle*; and, the same intelligence of Sense which *first* passed from *Pleasure* to *indifference*, now, again, passes from indifference to *Pain*: which last state will *augment Desire* for Ease, until the removal of the *now detested Turtle* suffers the poor Man's Mind to *relax*.

In this supposed case we must not confound the *absolute* Pleasure of *Taste*, in eating *Turtle*, with the mere *comparative* Pleasure in relieving Hunger: as, in the former case of drinking a *delicious* beverage, we are not to confound the *absolute* Pleasure of Taste with the *comparative* Pleasure of relieving Thirst.

SECT. VI. PAIN CHANGED TO PLEASURE.

It is above argued how sensual Pleasures may change into Pains. Whilst, on the other hand, it is known, that some impulses which *at first* produce *Pain*, of any Sense, may come to convey *Pleasure*.

The occasions of this last sort of change I suppose to be of *two* kinds; the one *partly mental*, the other *merely corporeal*: but the changes so produced are often, I think appreciated beyond their intrinsic value.

First, of the *intellectual* occasion. A Sensation *slightly* unpleasant which has been a frequent *harbinger* of *Pleasure*, or any how *deeply associated* with Pleasure, will seldom be either *felt*, or *remembered*; without *calling up* the *old* pleasant *associate*; and thus it forms part of a *compound Interest* in the Mind, in which *Pleasure so far prevails*, that no sense of Pain is noticed.

In this way we come to like a plain countenance which continually *beams benevolence*, and belongs to an amiable Mind whose *Acts are honourable and lovely*; but this liking will *never* amount to a sense of *beauty*, or even of comeliness. We may be deeply enamoured of a person with a very plain countenance; but can never think them handsome: and the pleasing effect, so far as it does go, is in *part* the effect of an *altered Action* of the *Optic Nerve*, ameliorated by habitual *repetition*.

The mere *corporeal* occasion of changing Pain into Pleasure, is a *change* of *nervous Action*, induced by repetition and other accidental means.

I imagine it would be erroneous to reason that nervous Motions, by *mere repetition*, change the *Consciousness they* convey, from Pain to become Pleasure; when it may be presumed, that from *repetition* the *Motions themselves change*: so that it is *not* the *same* nervous Motion which once gave *Pain*, that now gives *Pleasure*; it is only the *same Nerve*, under a *similar* external impulse, stimulating the Mind in a *different* way.

A Man upon the *rack* comes to feel *indolence*, and must be supplied with a fresh quantity of *nervous* influence, before he can be made to suffer the same extent of Torture over again.

A mouthful of honey, or dates, is delicious; but we soon find the continued Taste insufferable; and we, at the same time, discover that the Action on the Sense of *Touch* is vastly increased, insomuch that our very teeth become painfully alive to the contact of these Substances; and I suppose the gustatory Nerves, must feel in proportion. Here, then, Pleasure and Pain, from the same gustatory Nerves, are carried on by very different Motions.

A Man in the habit of handling hot Things, can hold a piece of metal that would burn the hand of a Man not so habituated.——No one can suppose that the one Man's Nerves here vibrate with equal force to those of the other. It is, therefore, *not* the *same* nervous Affection that *once* gave *Pain*, and is now felt with indifference; though the Mind is the same, and perhaps equally susceptible throughout.

Nervous Action is affected by so many accidental occurrences, and so *tends* to *alter*, even under regular repetition of external impulses, that we may easily conceive, that the same Nerves, under the continual repetition of the same external shock, may convey different effects, as to Happiness of the spherule Mind.——Beyond this it is proper to remark, that the greater number of these *nominal* Pleasures, which are the mere creatures of habit, are, in fact, *not absolute* Pleasures, but merely *comparative*; or, in other words, merely give such Feelings as are *tolerable*.

A Man who has used snuff, and written at a desk, for forty *years*, often finds *no* Pleasure in the one, nor Pain in the other. He *may* use snuff, and his pen, without having *any* Consciousness of *Interest*; yet, deprive him of *either* of these subjects, at the accustomed times, and *Uneasiness shall take place.*———Thus there are many Things which, at length, we cannot do without; that yet are as much of the nature of Pain, as of Pleasure.

It is said that certain fish Women, who are in the habit of travelling with loaded creels, have recourse, on their return, to ballast their creels with a half lading of sand, which prevents the Feeling of travelling *light*, and enables them to walk steadily. Now this I suppose they do to remove some *awkwardness* of *Feeling;* and yet perhaps no one will venture to call the change *absolute Pleasure.*

I think it would be erroneous to suppose, that the *same nervous Action* which at first conveys *mere sensual* Pain or Pleasure, will ever convey *truly the contrary* by means of an accommodation of *Consciousness;* and conjecture, that all such changes, are *changes* of *nervous* Action, so long as *Association* does not interfere.——Yet, however, as an extended Mind must operate by *Process*, it is impossible to say, whether repetition may not at length produce change in the sensual Consciousness felt from the Mind's own Motion.

SECT. VII. THE NATURE AND MOTION OF SENSUAL PAIN.

It may be gathered from what has been advanced, that *sensual Pain* is a *simple* Affection, occasioned by a *continuous Motion* of one sort; by which the Mind is externally deformed, and at the same time, rendered extremely *tense*: which *Tension* can occasion *expulsion* of *all weaker* Affections, even of Desire itself.

Mr. Locke, in admitting, in some places, the diversity of Uneasiness and Desire, says, "the Desire is equal to the Pain;" and in this I agree, insomuch, that the *Desire* arising from any Uneasiness, seems always to exist with an active *Distension* of the Mind, whether it extend to Bodily Action, or stop short of it. And when Pain and its Desire exist together, they form a continuous Motion or Affection, though not strictly a simple one. But Pain *may* distend the Mind to a degree which can expel *every* Thing except itself.

What has in this Chapter been advanced concerning Motions of the Mind, in the Processes of Sensual Pleasure and Pain, relates generally to *Superficial* Motions; but the arguments extend equally to *internal* Motions, which are supposed to exist during Affections of whatever kind. Now, reasoning physically, we must suppose, that whilst a *strong* Motion, or Motions, are going on *internally*; and these Motions are *defended by* a *Tension* of *mental Surface*; it will then require, also, a *strong external partial impulse* to effect any *considerable internal Change*. It must follow, that when the Mind is *tensely* occupied by *much Interest*, or many Interests, any accession of *moderate* or weak impulse, upon the Mind's Surface, will not be felt at all; that is, will not make any *conscious* change in the more powerful Motions already going on in the Mind.

It will naturally follow, from the *concomitance* of *Tension* with *Motions* of all *interesting intelligences*, that an impulse of Sense which *can* occasion no more than a *slight* change of Happiness when the Mind is *tense*, may yet be a stronger physical impulse, than one which produces a great alteration when the Mind is lax.———Hence while we are at *ease*, the *scratch of a pin* ought to give us (as we find it actually does) a *considerable shock;* that is, a great change in existing Interest; but in *fight*, or in *hunting*, a *severe wound* may feel, at the moment, as only a *mere scratch;* and will scarcely alter the important *existing Interest* in the Mind.

In closing this account of *Sensual* Pleasure and Pain, I beg to remark that the *general Fact* assumed, of the *alternation* of a *state* of Pleasure, is not at all Hypothetical, since it is undeniable that *Pleasure* endures just so long as *appetite*, and *no longer.* It is however evident, that this general *Conscious Fact* is very suitable to the Hypothesis of Distension and Relaxation.

THE
SECOND VIEW
OF
THE MIND.

THE first regular view of the Mind, besides some general description of its *Susceptibility*, *Motivity*, and *gross* operations, contains a *particular* description of *primary* Affections, or those conveyed by the *external* Senses; wherein is shewn that *mathematical* relation among Sensual Facts, which I have already mentioned as claiming our particular attention.

The View now to be entered upon, is that of some *mere intellectual* Modes of Feeling, or those which may be called *consequent*. Of these, *Memory* and the *Passions* are the most considerable; and I have attempted to shew the *nature* and *origin* of both these Modes; to which is added some conjecture, from general analogy, how such Affections may *physically* consist with the Processes illustrated in the account given of the external Senses.—Here it may be observed, that I do not speculate upon the *particular Modes* of such Motions as are supposed to go on within the Percipient; but, on the contrary, confine my view to what I consider a fair *general inference*, from such Facts as are displayed in Sensation, and from the constant known effects of every degree of both Passion, and moderate Feeling, upon the corporeal frame.——If the general inference be found warranted, it will be a considerable step, though we should never get farther into the minutiae of *internal* Processes.

It may be equally proper to remark, that in treating the different Subjects in this *Second View*, there is *nothing Hypothetical*, except that their *general consistency* with the spherule Hypothesis is necessarily pointed out, after describing their *conscious* Processes.

CHAPTER I.

OF MEMORY.

SECT. I. BRAIN IS NOT THE AGENT OF MEMORY.

MEMORY so certainly depends upon the Action of the *Brain*, that many have been led to conclude it must be the immediate *Substance* which *thinks*.—This, however, is not a *necessary* consequence; and the *Brain* may be supposed to possess a most important *instrumentality*, without being itself Mind, or without *its* Motions being the Motions of Mind.

It is obvious, that if an *extended Percipient* be to co-operate by *proper Motions*, with a *nervous system* adapted to its *exterior* Surface, the Motions of the Nerves (where they correspond to those of the Mind) must, to a certain extent, *resemble mental Motions*.—It follows that in *whatever* way the Mind may be extended, and operate, some parts of the *Brain* must possess such an Organisation, and Motions, as shall be somewhat *analogous* to those of the *Percipient*, so far as to render observers liable to mistake the *false* Subject for the *true*.

—It must be farther evident, that a Mind so circumstanced, must in a very great degree depend upon the Action of the Nerves and Brain; which will tend, strongly, to confirm men in the error of speculating upon a *Cerebral Mind.*

But, after what has been advanced in this inquiry, to illustrate the operations of a *spherule Mind* supposed to be surrounded by the *Brain* it is easily *conceivable*, that a particular *state* of the *Brain* (such as exists during *Sleep*) may *prevent* any *Motion* of the *Mind's Surface*, and thus stop the current of *Ideas*, and prevent even *Sensations.*

It is farther *conceivable*, that an *inflamed Brain* may inflict *irregular*, or even *violent impulses*, which would *confuse* all correct thinking; and thus produce delirium, or other mental derangement.

Again, *another state* of *Brain*, (such, perhaps, as its *languid* Action,) may induce a *hypochondriacal* state of Mind; wherein, perhaps, a Man *reasons* more *clear*, and *deep*, than during good health; although his conclusions may be *gloomy;* which sort of result would oftener happen in healthy persons, if they stretched their Minds to embrace *every serious consideration* of their Existence: and it may indeed be, that *loud mirth* (however *happy*,) is more nearly related to *insanity*, than can be truly said of silent *melancholy.*

I shall not, here, enter deeper into this view, because it will be proper to consider the office of the *Brain* in another place: but, it may be seen, at once, that agreeably to the spherule Hypothesis, *Thinking may certainly depend* upon the *Action* of the *Brain*, though the *Mind*, itself, be quite a *distinct* Thing.

SECT. II. INTEREST GIVES MEMORY.

I confess myself labouring under the opinion, that the occasion of *Retention* has not been *adequately* considered by those, in general who have treated it.

We usually find it asserted, that *Attention* is *necessary* to give *durability* to *Ideas;* and if the term *Attention* be strained to an *improper* extent, the assertion becomes *true.*

We may be said to *attend* to that, which we are under *necessity* to attend to; and I agree, that *Memory* will ever be found proportioned to the *degree* of *Interest* in the *original* Feeling; whether this Interest be *pleasing* or *painful.* But, the import of the *term Attention* has been fixed by those who so speak, in being explained a *voluntary Act;* and it must be from a similar view of the subject that Dr. Hartley speaks of "*express acts* of *Memory,*" which I have noticed in Chapter II., though nothing is more certain than that *Memory* is always dependent upon *interested* Attention, and *not* upon *mere voluntary* Attention.

Confine an unprofitable boy for hours, *repeating* over his lesson; and, though he must have *Volition* to read, yet, having *little Interest,* you shall find him not imbibe a single *Idea, deep enough to be retained;* especially if his Mind be occupied by the *Interests* of *apples, cakes,* or *play.* But if the painful *Interest* of *punishment* turn the scale, he shall *remember* his lesson; or, *if* it be couched in *interesting shapes,* he will catch it up quickly:—hence the *use* of adapting instruction to juvenile minds by *pleasing tales* which *interest* them.

So universally true is this, that perhaps it is *one* of the *grand* purposes of *Pleasure* and *Pain*, to secure to us the *benefits* of *experience* by *Memory*.

Mr. Locke, indeed, does justice to Pleasure and Pain in this question; and allows, that *attention* and *repetition* only "help much to the fixing any Ideas in the Memory:" but, if attention and repetition do not produce increase of *Interest*, I deem it will not help much to fix Ideas.

Upon the whole, I think it a very *cold* and *inadequate* expression to say only, that *Attention* (as a voluntary act) is necessary to *Retention*; since the degree of Retention will ever be found (other circumstances being equal) strictly in proportion to the *Interest* of the Thing *remembered*.

Here I must repeat what I have already noticed, that almost *every* sort of *Knowledge* or *Thought*, besides being Knowledge or Thought, is *apposited* with *Pleasure*, or *Pain*, of some sort, or degree. And I assume, that it is *always* in *proportion* to the *degree* of the *apposited Pleasure*, or *Pain*, that any *Knowledge* or *Thought* is *remembered*, all other Things being equal.

A Sensation may produce *considerable Perception*, and yet be *evanescent* as to *Pleasure* or *Pain*, in which case it is always quickly forgotten, unless repetition, at last, give opening to *some Interest*.

Here let me not be misunderstood to mean that *repetition* does not strengthen *Memory*. On the contrary I allow its full effect; and contend, only, that it is not because the *Nerves* repeat their Motions (and thereby beget a *tendency* to *repeat* them) that we remember; but, because, during such repetitions, the *Mind* feels *more*

Interest. For instance, if a careless Boy be made to write a word several hundred times, he will scarce forget it; but this is not because his fingers have repeated it so often, but because the *Pain* of *writing* it, and the privation of Play, have given the word a *Painful Interest* which will cause its orthography to be remembered.

SECT. III. MEMORY IS PASSIVE, AND EXISTS WITH MOTION.

Memory appears to be, a *sympathetic* unavoidable conscious *Suffering;* being the *effect* of a tendency the Mind has to *relapse* into any *Feeling* (simple, or complex) which it has once, or oftener, suffered: such sympathetic *relapse* being brought on by *any* Affection that *resembles* the whole, *or any part,* of the *original Feeling.*

The only conscious difference between a picture attentively *seen,* and the same picture immediately *remembered,* is in *degree* of *strength;* and, farther, in the *loss* of a *number of minute features;* very much resembling the deficiency of correctness, of impression, that might follow from an engraved plate being *imperfectly* impressed upon paper.

When a *complex* Sensation of *Vision* is remembered, we have a faint *copy* of it in the Mind; the *imperfections,* or *obliterations,* of which, lie in those parts that were its *least interesting* features: but, when a *simple* Sensation of *Vision,* or of any *other* Sense, is *remembered,* it appears a *correct* copy, wanting only in *strength* of Affection; and even *strength* will *not* be *wanting* if the original *Feeling* has been *deep*, in *Pleasure* or *Pain*.

Now, if the *Originals* of these *Feelings* were conveyed to the Mind by *Motions* on its exterior *Surface*, (as *sensual* Ideas are fainter relapses into similar Feelings,) we may suppose such relapses are *accompanied* by Motions and Undulations which, though *much smaller*, are of the very same *nature* with the *Originals*.—Especially should this be the case, since not only are *sensual Ideas* undoubted *copies* of *Sensations*; but they recur in the very same way that Sensations themselves assault us; that is to say *irresistibly*, and never, in any instance, by the *immediate* energy of Volition.

If we *remember* a Thing brought in by *Association*, this Affection is, notoriously, *forced* upon us; but, if we try to *recollect* a Thing, we *will* to put ourselves in this and that mood, or posture of thought, until at *length* the Thing *strike* us by the medium of Association, as much as if it had occurred unsought.

Thus, if I wish to recollect an affair that passed in a particular company, a week ago, I voluntarily transport my *Attention* to the house, and let the party, and their converse, *pass* in attentive *review*, until *at length* I recollect the matter sought.—Here the *recollection* of the Thing is no more a *voluntary Act* (or an *Act* at *all*) than my getting *wet* is an *Act*, if I chuse to walk out when it rains.—To walk out when it rains is certainly an Act; but, to get wet is a *Suffering* in consequence of such Act.

If I go, *voluntarily*, to see a *spectacle*, I nevertheless *suffer* the *Sight* of it; and when I remember it, I do nothing but *suffer* in *Idea*, as I before *suffered* in *Sensation*. But, if I have *forgot* the particulars, and *wish* to *recal* them, I take a *voluntary* retrospect, until at *length* I *suffer again* the *same* (or something like the same,) that I *suffered* in the *two former* cases.—The *whole* is mere suffering.

On the other hand, when we *will* to *forget* a Thing, our *voluntary* Power is *again humbled*; because the very way to *think* of a Thing *we do not wish* to *think* of, is a *direct Volition* to *drive* it away.

Opinions have been divided not only as to the *Activity* of the Mind in *Memory*, but as to whether the Mind is *active* in Perception of external objects, and *even in Sensation* itself.—Now, what I have maintained throughout is, that in *all search* after *Memory*, *Imagination*, or other *Knowledge*, the Mind is *so far active*, that it *exerts Attention;* and then, *if it succeed*, the *Memory*, *Imagination*, or *Knowledge*, *strikes it*, in such posture, somewhat as the Sun's Light darts in through a window which we voluntarily open, or, as passing Clouds over-shadow us.

I have contended from the beginning, that Memory and Imagination, like the coarsest Sensation, or the most refined stretch of Reason, flows upon us as it were a tide, whenever it does come ; and whether we be actively instrumental, or only passively capacious, to it, the *Fact itself* is equally an instance of *Suffering*.

Proper Motion has been throughout adopted as the *occasion* of *all* Feeling or *Knowledge* ; and (reasoning *physically* from the nature of a flexible *Spherule*) we must infer, that every Feeling, *if occasioned* by *Motion*, is *accompanied* by Deformity or *Undulation:* therefore, every time the Mind is *replaced*, by its *internal* sympathy, under a Feeling similar to a former one, such Feeling will probably reproduce the *original external Deformity* of the Spherule.———

If this be so, Memory is *operatively*, as well as *consciously*, a refined Species of *Sensation*; consequently, subject to the same Laws which regulate sensual operations.

SECT. IV. MEMORY IS REVIVED FEELING.

Notwithstanding whatever has been ingeniously advanced, concerning the tendency of *cerebral Vibrations to call up each other* after many synchronous repetitions, even to the greatest extent of thought (to be examined farther on,) I must here offer a result, from my own experience, that though the *Nerves* stimulate the Mind an hundred times, we *never* have any *Memory*, except precisely in the *manner*, and *degree*, of *Pleasure*, or *Pain*.

If my Eyes embrace an hundred Objects at once, I shall be *most conscious* of just so many of them as I see *with Interest*; which may be *ten* distinct features. Now, if after a lapse of time I chance to have a *Sensation* from *any One* of these *ten* features, the *Ideas* of the other *Nine* will start, duly arranged, into my Mind; and this *irresistibly*, exactly *as has the present Sensation of the One.*——— Here now, if these *ten* features have been *originally* contemplated with *different degrees* of *Interest*, that is to say, different degrees of *Pleasure*, or *Pain*; they will now stand *re-produced*, each with *vividness*, and precision, *exactly proportioned* to its *original Interest*; (although the *nervous Vibrations* which produced these original Interests must have been *all* of nearly *equal* force:) and, the remaining *ninety* Objects, *formerly* present *without any Interest*, will *not be remembered* any more than if they had never existed.

What then is Memory, in this case, but *mere Feeling*, or a *relapse* into the *whole* of a *prior complex Consciousness*, the instant the Mind is re-impressed, from *without*, by the *smallest feature* of the said Consciousness, or, perhaps, by any Feeling *approaching*, *in tone*, to any such feature?

Now though the *Sensation* (above mentioned) from the *Single* Object reviewed, was from an *external* impulse, accompanied (I suppose) by its proper *Undulation*; yet, the *Feeling* of Pleasure, or *Pain*, of this Sensation, was *internal*; and, the *sympathy* which *reproduced* the other *Nine Ideas*, was *also internal*, but nevertheless probably *accompanied* by *Motions* and *Undulations* on the *Mind's Surface*, of the same *sort* that had occasioned the *Sensations* of the *Nine*, and differing in *size* only.——The statement of this last Process demands attention, to enable us to discern the physical Process (as I suppose it to be) of the Mind during *Memory*, arguing from the Analogy of a *Spherule*.

There certainly is but *one* store-house of Knowledge in the Mind. We have *not separate* departments, for *sensual* and for *mere intellectual* Memory; but all materials are laid up together, and re-occur together as laid in (sensual and intellectual,) *all intermixed* and bound together as they were originally felt.——If a Sensation (of whatever Sense,) either convey, or be marked together with, an intellectual Passion, we shall remember these two synchronously; and, if the synchronous Affection be more *complexly* interesting, so will be the remembrance.——Now, upon the Hypothesis of a spherule

Mind this appears a natural result; for if *sensual* Affections are occasioned by ***Motions*** of the Mind, I suppose, (from their forming complex Affections with *mere* intellectual Affections in an extended Mind,) that ***mere intellectual*** Affections, also, are ***accompanied*** by ***Motions***. If this be so, these Motions (though no figures can be assigned) probably extend to the *Surface* of the *Mind*, intermixed with the *Motions* of *Sensations*; and this is farther probable because we find, that Memory of strong *mere* intellectual sufferings moves the Body in various ways, and, at least, affects circulation, digestion, and other such Processes.

If this reasoning carries probability, then, any ***changes*** of ***Brain***, which check, or alter, the Motions of the Mind's ***Surface***, will affect not only ***Ideas***, but ***also all intellectual Thoughts***, and thus ***derange Memory***, more or less, accordingly as the ***Brain*** is unduly agitated; as we find takes place during deranged functions of this Organ.

SECT. V. RETENTION IS NOT FROM VIBRATION.

Contrary to any vibratory Theory, I think the strength of ***Retention*** depends not *necessarily* on strength of nervous Vibrations; nor upon their *repetitions*, except so far as repetition may give access to *greater Interest*.

The heavy jolting of a horse, or an elephant, especially if uncommon, must produce stronger nervous Vibrations, and correspondent mental Motions, than those of any *visual* Sensation; yet such Motions (not affecting our *Happiness* deeply) are soon forgot: but, the mere *Sight* of a *loathsome* Object shall relapse the Mind, by *sympathy* with *some former misery*, in a degree to produce no less than bodily convulsion. Here we see, that *mere Ideas* are *faint* Feelings *only* if the *originals* were *uninteresting;* but they are really very *deep Feelings* when they are relicts of Feelings of great *Pleasure* or *Pain.*

The sight of a *leech,* or a *finger moving* like a leech, will throw some persons into horrors; which surely cannot proceed from strength of *visual* nervous *Vibrations,* but only from the *intellectual* Pain that the *Sight* of a leech has *formerly* occasioned : and the like happens, sometimes, from remembering loathsome food, and other such Affections.

The *Visual* Idea of a dying friend, and the circumstances of the Scene, haunt the Mind as a dreadful reality, and cannot, for a time, be expelled; but no one can suppose that either our deep Interest at the awful moment, or our *Retention* of it, is the effect of force in the *visual Vibrations;* and, if *not visual Vibrations,* there is still less reason to suppose these effects caused by Vibrations belonging to any other part of the *Brain.*——The *Pain,* here, is *merely intellectual;* and the long lasting *remembrance* is the consequence of nothing but that *Interest.*

Here I am happy to cite a concurrent sentiment of Professor Stewart, in the third Chapter of his Essay on Taste.——"In recollecting "any particular occurrence, whether prosperous or adverse, of our "past lives, by which we were deeply affected at the moment,—how "indelible do we find the impression left on the Memory, by the "most trifling and accidental details which distinguished the never "to be forgotten day on which it happened."

I can well remember *moderate Sensations*, *Thoughts*, and *Dreams*, of my childhood; which yet have revisited me but seldom in the shape of Memory, and that at very distant intervals. These must therefore have been retained by mere force of *Original Interest*; and not by dint of either *strength* or *repetition* of Vibrations.

I have been in many Storms at Sea, yet now remember very *few* of their *particular* features. Those retained are, in general, the *earliest* of such Feelings; and that, *merely*, because I *felt* them *more painfully*; but I have *forgot subsequent* ones, because they made very *little* impression on me. Now, through all these, I must suppose the *nervous Vibrations* to have been nearly as strong in one case, as in another; and those *last* felt, ought to have *most vibratory influence*.

By the time a man has reached the *middle* of life, he has become so *accustomed to ordinary* occurrences, that they make much *less* impression, either as *Pleasures*, or *Pains*, than in *early* life: and the consequence is, that in *mid-life*, what we *read*, and what we *say*, or *do*, *in ordinary*, is more apt to be *lost*, than the intelligences of *early* life: though in middle age our *nervous Vibrations are* perhaps *more vigorous than at any time of our lives*.

SECT. VI. ASSOCIATION IS NOT FROM VIBRATION.

That *Association* is not the effect of a *concomitance* of cerebral *Vibrations*, or, that *Ideas* are not thus *joined* by *nervous* agency, I may farther argue, from the *Fact* of our *often* retaining the *import* of what we have either *read*, or *heard*, without being able to *relate* either, in any thing like the *original* terms.

Nothing is more common, than for two or more persons, of good Understandings and characters, to give solemn evidence to what has been *said* by *others*; *agreeing in substance*, and yet *differing considerably* as to the *Vibratory Facts* of the *terms* which they *heard.*——Hence it is usual to find witnesses depose, that a plaintiff, or defendant, said so and so, "*or, words to that effect.*"——This could not so usually happen, nor, perhaps, happen at all, if *Association* were a Fact *merely Vibratory*; because, as the *Words heard* must be supposed to be *Vibrations more gross* than the *Ideas* they *convey*, we ought to remember such *Words* at least as *unchangeably* as their *import*. But the *Fact* is, that a man who has *heard*, or *read*, in a desultory way, without burthening his Memory with *verbal arrangements*, will, however, retain the *sentiments* of his authors in a pretty extensive degree, without being able to pronounce a *Vibratory repetition* of two lines out of any one of them.——In such cases, we remember *only what we feel*; and, as the *marrow* of an author is *different* from, and often much *smaller* than, his *Words*, though *these* last *all Vibrate* in *perusal*, yet, as they do not *individually interest us*, we *lose*, or even unwarily *change* them in *Memory*, without losing, or changing, the *interesting Feelings received.*

But, a stronger Fact, than the foregoing, daily takes place.——If *Association* be a mere *nervous Vibratory Fact*, we should at any rate expect that *Words heard*, or voluntarily *pronounced* by *ourselves*, (if not *remembered*) would, *at least, be accompanied by* the *Ideas* which we have always attached to them.———Now far different, is frequently the case.———It is found an objection to a fixed form of prayer, that we are apt (notwithstanding a religious Volition,) to repeat our petitions whilst our Thoughts are sordidly grovelling in concerns unworthy even of *mortals*. In such cases, the *Creed* and the *Decalogue* are *pronounced, (and vibrate)* with the *co-existence* of *Ideas* of *Vanity, Luxury, Power*, and perhaps *much worse;* whilst *Ideas* of our *duty* (which we have *a thousand* times *associated* with the *Vibrations* of both *seeing*, and *hearing*, the Words of prayer,) are as much *out of Mind*, as though we had *never* known them.———The circumstances, here, are particularly unfavourable to a *vibratory* Hypothesis.———In Church, when we are thus warned by the monitory *Vibrations* of the Pastor's *voice;*—*awed* by *visual Vibrations* from tombs formidable in emblems of death;—and impressed by the *exterior solemnity* of the *whole* Scene,—what is the result?——The *interested* Mind, *dead* to *all* these *Vibratory* remonstrances, holds converse *only with itself*.—The Miser schemes his own wrong, of some remaining comfort;—the Hypocrite deceives his dearest friend;—and every Mind successful in Vice, meditates crimes of a new relish: whilst all the efforts of *Vibratory accusation* in *vain* strive to *disturb* their several *Reveries*.

In all these cases, we see, *Interest* in a moment destroys the boasted *Association* betwixt *vibratory* and *intellectual* Affections; and equally that between two *vibratory* impulses.———It is therefore *conjoined Interests*, (and *not concomitance of Vibrations*,) that radically operate to associate Ideas.

The *Sounds* of many *words*, in different circumstances, call up *opposite* Ideas; but, if the *Idea* be only the *mere vibratory associate* of the *Sound*, (arising from concomitant repetition,) then, though *any Sound* might be supposed to call up *two Ideas*, (if *two* have been, at *different times*, associates with it,) I cannot conceive how *one* of these *Ideas* could *sleep* whilst the other is called up; but should suppose, that the *same Sound*, if possessing a decent and a gross import, must inevitably call up a gross and a decent *Idea* at the same time.

This Fact, indeed, does sometimes take place in cases where the Mind has *once had* a vitiated *Interest* in a *gross Idea*, whilst *expressing* the *Sound* of a *decent one;* but, such *Associations never arise* if such vitiated *Interest* has *never existed;* and, our language has many expressions that may convince us of this fact.

The same reasoning holds in the *Sense* of *Vision*, with regard to *similar Sights*, which, under opposite Interests, call up totally *opposite associated Ideas*, whilst the other associated Ideas sleep. And, it is a certain proof of a *sickly* Sensibility, (though Sensibility it is,) when the *same Sound*, or *Vision*, calls up *two such opposite Ideas;* because, it evinces a *depraved Interest*, which at best is unfortunate.

Once for all I am to remark, that I do not at all argue against the power, or effects, of Association; but only to shew that Association *is not* the *effect* of *concomitance* of *Vibrations*.

Neither have I intended to argue, that repetition affords no aid to Association and Retention. On the contrary I consider, that frequent repetition of any Sensation, or Idea, must almost certainly *occasion some additional Interest* (pleasant or painful): therefore *repetition* is, in most cases, an *accidental aid* of both Association and Retention.

But what I contend throughout is, that mere repetition (as a vibratory Fact) does not occasion Retention, nor does *concomitance* give the *Nerves* a *mechanical* tendency *to re-produce* past *synchronous Ideas.*

SECT. VII. MEMORY IS GRATUITOUS.

Memory, being *sympathetic*, results from a Species of *weakness*, rather than from strength; and, no doubt, depends on *Susceptibility* of Mind, all other circumstances being equal.

Ideas or Notions, during both *Memory* and *Imagination*, occur, or *strike*, in the very same way with *Sensations*, that is, *irresistibly*: and the rough *materials* of Knowledge being thus *gratuitously* afforded, either accidentally, or upon the searching about of rational Volition, it is the business of the reasoning Mode to work upon them. And this is an endless employment, wherein it has opportunity to display that superiority granted by its adorable Creator, over the Minds of other animated known Beings.

But, all that *Reason* can do, however, toward producing *Memory*, is to hunt about for the *ready formed materials*, when wanted; in doing which, they will often cast up in *larger*, or *smaller*, complex masses than we happen to want: and these are out of our Power to create, or annihilate, nay, *or any how to alter*, *(as Memory,)* though we may pick out *any part*, for what purpose we chuse.

SECT. VIII. SUCCESSIVE MEMORY.

Synchronous Memory being argued to be sympathetic, it is easily conceivable how *successive* Memory, being also sympathetic, may take place.

Every step in *successive* Memory, such as Memory of a *Tune*, or a *Poem*, is but a *Succession* of *revived Feelings.*

Each of these *steps*, as they occurred in *Sensation*, had put the Mind under a *new Motion, Posture*, and *Feeling;* but, each of such *new* Feelings was *suggested* by the *next preceding* one, insomuch, that *if it had not been for* the *Posture* that *went before*, this *Point* of the Mind's *Surface* could not have been *tumbled* into the *next* that *followed;* the Motion of which *tumble* was that of a *new Feeling.* Thus the *steps* have an evident connexion, and they *contribute* each, (in a way) to *beget* the next *succeeding one.* Now, the Mind *must feel* in *Memory*, as it *felt originally;* therefore the *Succession* seems matter of course.

Upon the Hypothesis of *Undulations*, it is evident *why we cannot*, at first, repeat the Alphabet, or aught else, *backward* without labour; because the whole *retrograde* Process must consist of *new Feelings*, such as we never had before; and must undulate the *Surface* of the Mind, from *step* to *step, in a way that it never was undulated before;* whilst certainly it can have *no* sympathetic tendency to *relapse* into Motions or Feelings which it *never had*, but must *learn*, as *new Sensations.*

It is a question with Philosophers, why we should remember Things as they have been; and said; that for any thing we know, the whole might be a most egregious misrepresentation. But if Memory be referred to *sympathy* of a Mind consciously susceptible on Motion, we may expect Ideas to be like their originals, and to *follow* like them. —The preceding Motion puts the Mind into a *posture* which, in giving way to the next posture, begets the Feeling of the next Idea; and so on in Succession, until we remember a Tune, a Poem, the rooms of a House, or any other Succession, or group, of Ideas.

The physical Process which *accompanies* successive Memory may bear some distant analogy with the successive fall of Cards set up by Children in a devious line.—These (when an impulse is given to the first) set each other in Motion; and the whole move-(governed by physical laws) one after another, and must do the like so often as the posture and impulse be repeated.—Any one Card may chance to vary *a little*, owing to some slight cause; but none of then can rebel against the Law by which *each governs his next associate*.—Here, however, it cannot be supposed that any such conception is advanced as other than darkly conjectural, or merely sketching a possibility which seems to agree with the general Hypothesis.

SECT. X. REFLECTION ON MEMORY.

It appears *grandly fit*, that an *accountable Being* should have *Memory grafted* upon *Interest* of *Feeling* and *Action*; and wholly *independent on voluntary Power*. We may, it is true, voluntarily *improve* our Memory, to the extension of Knowledge; but, all Men above idiotcy have *natural Memory* enough for *moral accountableness*: and, of this *sure fruit of Interest* they *cannot divest themselves*, any more than they can refuse those Pains which so often prove the safe guard of their Bodies from destruction.

As mere *locomotive* Animals, (and, far more, as *accountable* Beings) we cannot make any *essential* distinction betwixt that Species of *Feeling* called *Memory* and the indispensible Feeling of *Touch*. Both belong to the *innate Susceptibility* of the *Mind*; and, when *either* is durably suspended, it is by the same means; that is, by some undue Affection of the *Body*, *exterior to Mind*: whilst, (agreeably to the Hypothesis of a *spherule* Mind,) whatever *general external* pressure shall *prevent* the *finer Motions* of the Mind's *Surface*, must thus prevent *Ideas* or *Memory*.

In this account of Memory, I am too sensible of the *insufficiency* of the Evidence, to aim at giving much additional strength to the Hypothesis.—I deem it quite sufficient that, *so far as appears*, the *phenomena* are *very consistent* with the Hypothesis; while my more direct Object has been to shew, that they are *inconsistent* with the "*doctrine of Vibrations.*"

CHAPTER II.

OF THE RELATIVE VIVIDNESS, PRECISION, AND DURABILITY, OF IDEAS.

SECT. I. INTEREST GIVES VIVIDNESS OF IDEAS.

In this place it may be proper to ascertain the relative Powers of our *external Senses* to leave *vivid* and *durable Ideas* in the Mind: especially because I imagine some error obtains on this subjec .

It is universally esteemed that Sensations of *Vision* leave more *vivid*, *precise*, and *durable Ideas*, than those of any *grosser* Sense.—This Fact, I also admit, is very *usually* that which *happens*; and perhaps it goes far in evidence of a *distinct Mind*, because it is a direct *proof* that our very weakest, and *least acute*, *nervous impulses* are enabled, *(by some means,)* to leave the *most vivid* and *durable relicts*: which is the very *contrary* to what should follow *if* our Ideas had *no* Source *except medullary Vibrations*.

Whichever way we look at this extensive *Fact* it makes equally *against* the *doctrine* of *Vibrations*, as laid down in Dr. Hartley's "*Observations on Man.*"———If the most delicate nervous impulses, *void* of the least *absolute Interest*, leave the *most vivid and durable Ideas;* and if the *grossest* Sensations are *far less efficient*, (which is confessed by all,) this seems completely to reverse the doctrine of *medullary Vibrations*, or so far renders it *apparently inconsistent.*——But, since the most *delicate Vibrations* really *do*, from *some cause*, leave more *durable* Ideas than are left by *stronger Vibrations ;* then, *such cause cannot* be the said *Vibrations ;* and we must look for some other.

Here I risk the assertion, that though the *Fact* of *visual superiority* is so justly acknowledged by all, the *cause* of this Fact is *overlooked*, or *mistaken :* and, that the *superiority* here confessed *is not sensual*, though it generally passes as such.

Nothing is more *untrue* than that *Sensations* of *Vision do necessarily* leave more *vivid* and *durable Ideas* than those of *grosser* Senses.

Nothing is more *true* than that Sensations of *Vision*, when *associated* with *Interest* (either sensual or *intellectual*,) *do* leave more vivid and durable *Ideas*, than Sensations of rude *Vibration* that are *not associated* with *equal* degrees of *Interest.*

Farther, perhaps few Facts are more *frequent* than that *Sensations* of *Vision are deeply associated* with *intellectual Interests*, at times when such Sensations *have not the least intrinsic Interest* of *Vision. Hence the true cause* of the *supposed visual superiority*, the mistaking of which is an error of magnitude, and must be here inquired into.

The ingenious author of the doctrine of Vibrations must, doubtless, have been struck by his own position, that "Sensations of *Feeling*, "*Taste*, and *Smell*, can scarce be said to leave Ideas, unless very indis-

"tinct and obscure ones:" and farther, by the fact (admitted by himself, as well as others,) that *Ideas* of *Vision* are by *far* the most *vivid* and *distinct*.———I scarce know any *particular Fact* that *appears* more *hostile* to the *Hypothesis* of a *cerebral Mind*.

I do not here overlook that it may be objected, that a gross *rude* Sensation *may not* be an *acute* one; therefore, not capable of leaving *vivid* and distinct *Ideas*.—But such objection would be futile, because *proper* Sensations of Vision are not only physically weakest; but, beyond all comparison, consciously *least acute*.———Those *Sights* which *often give rise* to the most *violent Passions*, have no *sensual vibratory Interest* whatever. An *acute Sensation* of *Vision does only prevent Vision*, by deranging the *Organ*; and such Sensation must belong to the *gross Sense* of *Touch*.

In granting evidence *against* the *grosser* Senses, Dr. Hartley has, however, granted more than a contrary Hypothesis demands, or than justice can claim; because, taking the Senses *without Association*, (which we are bound to do in treating them as *mere Senses*,) I deem it undeniable, that they, respectively, leave *vivid* and *durable Ideas*, precisely in *proportion* to the physical or *vibratory Power* with which they *affect* our *Happiness*.

As *mere Senses*, every one of the *grosser* Senses often leave *more vivid* and *durable Ideas* than any of those left by *mere Vision*. But I am at the same time perfectly aware, that because *scarce any* of our *Sensations*, in life, can be suffered *unassociated*, it becomes matter of deliberate and rigid investigation, to discover the real cause of Visual *superiority* in Retention; which cause has so generally been overlooked.

In estimating the Power of *each* external *Sense* to *Interest* the Mind, as well as the *vividness* and *durability* of *Ideas* which it leaves, it is very obvious that in an inquiry like the present we must not confound its Power as *Sense*, by adding that *incalculable augmentation of Power* which it may derive from *Association* with other *Feelings*, especially *Pleasures* and *Pains*.

If we behold a *shipwreck*, or a person shockingly *lacerated*, the sympathy it *must* excite, *at the moment*, may banish several present *strong Sensations*, besides *Memory*; and we might never be able to *obliterate* the *Idea* which such a spectacle would leave behind it. - But surely, no one will mistake the *original Affection*, by esteeming it no more than *mere Sensation* of *Vision*.——If experience had not taught us that the crew must *feel*, and *perish*, we should view a *shipwreck* with no *more Interest* than we view a *falling tree*: and, even, a falling tree is not viewed without Association of the Notion of *destruction*.

Shocking Sights affect the Mind *not* by their sensual Power, but by *Association*. If it were not so, a *wounded Man* would not be longer remembered than a wounded *melon*.

If Sensations were felt *merely as such*, *without Association*, then it would be always true, that the most *vivid Ideas* would correspond to the most physically *acute Sensations*: and then, we should never be led into the mistake that Sensations of *Touch*, *Taste*, and *Smell*, scarce leave Ideas. But, the *Fact almost always is*, that *our physically weakest Sensations*, (which are visual *ones*,) are *associated* with our *strongest intellectual* Affections; merely owing to which, they leave the *most vivid Ideas:* and this notorious *Fact* is extremely *hostile* to all Hypotheses of *cerebral* Agency.

Farther, it is actually *contrary to experience* that Sensations *require* to be *often repeated,* to leave vestiges, or, to call up their associates; because, I can advance particular *Facts* of *single* Moderate impulses, of each of my Senses, experienced during childhood, which have stood their ground many years, without any notable accident to recal them. I can, at the same time, state the *intellectual* Affections, by *Association* of which they have been *remembered;* and may assert with confidence, that *no nervous* Affection, however *rude,* or however repeated, leaves durable Ideas, *except* exactly in *proportion* to the *degree* of *Pleasure* or *Pain* which has existed with it.—I am led to state this the more emphatically, because, the whole stress of a *vibratory* Theory bears on this; that two Vibrations, being *associated together* "*a sufficient number of times,*" *beget a power of calling up each other.*

I should have no difficulty, beyond mere labour, in collecting a thousand Facts wherein the weakest or least acute *Sensations, once felt,* have ever after called up their associates with most *vivid effect* and infallible certainty.

An ignorant superstitious person, though of good courage, shall retain the Idea of any *questionable Figure,* or *shadow,* and all the *associated circumstances,* with more precision, and durability, than the Memory of *twenty cuts,* or *bruises;* and better than his *creed,* which he may have *repeated* an *hundred times.*

A single *delicate* notice, of either *Hear,* or *Sight,* by conveying to a Man the Knowledge that he suffers some *atrocious* and *irreparable* *wrong*, shall convulse his Mind with more *violence*, and a more *durable Association* of circumstances, than could be effected by many *repetitions* of *vivid sensual Pain*.

SECT. II. INTEREST GIVES RETENTION.

The immediate Fact of Memory is a *revival* of *Feelings*, in their former varieties.——Now some of the principal assisting means of *Vividness*, *Precision*, and *Retention*, of *sensual* Ideas, I take to be,

1st. Intrinsic or absolute *Interest of Sensation;* with either duration, or repetition.

2d. Interest by Association, as *harbingers*, or otherwise *related*, to *intrinsic Interests*.

3d. Repetition of the *remembrance* of *deeply interesting* Sensations.

4th. Accidental Association with present Affections of little Interest; which last in the weakest aid of Retention.

Here we see, it is *Interest*, *(Pleasure* or *Pain,)* in various shapes, as well *intellectual* as *sensual*, that proves the *only* mean of *Retention*. —And *in not one* instance does it, *necessarily*, depend on *repetition* of *Sensation;* which last, indeed, *by increasing our Interest* does assist Retention, but not by influencing the Nerves.

These several *assisting* circumstances, operating so variously as they must do, may in a thousand cases give *precision* and *durability* to *Retention* of *Ideas* left by a *weaker Vibration*, whilst Ideas left *unassociated* by a *stronger vibrating* Sense, (such as *Taste*, or *Touch*,) may soon become obscure, or even *obliterated*. But, when the inquiry is to ascertain the efficiency of Sensations, (as such, *unassociated*, we must take in *only their respective absolute physical Powers* to produce *Retention*; which will be found precisely as their absolute Powers to produce *Pleasure*, or *Pain*.

One most powerful assisting circumstance mentioned, is *intrinsic Interest* in *Sensation*; and, quite equal to this is *interested Association* with *intellectual Passion*.

Now, *visual* Sensations are not only very *interesting* in *themselves*, (though physically weak,) but, in addition to this, they are *deeply associated* with *all* our *strongest Passions*, because they are the most frequent *precursors* of our *Pleasures and Pains*, both *sensual* and *intellectual*. And, even when they do not impress us as *harbingers* of *Good*, or *Evil*, they are naturally conveyed in *longer duration*, and more *frequent repetition*, of their *own Interests*, than impressions of any other Sense. Thus *visual* Affections embrace *almost all the assisting* means of *Retention* in a *prodigious degree*.

The Senses of *Touch*, *Taste*, and *Smell*, are far less frequently the *harbingers* of *Pleasures* and *Pains*, though they convey the *strongest sensual Pleasures and Pains themselves*; hence, the *Ideas left* by these, must generally depend on their *absolute* degrees of *Pleasure*, or *Pain*, for precision and durability of Retention: but so sufficient are they for these, that a vivid Pain, or Pleasure, from either of them, is *never* forgotten, nor rendered doubtful.——The *durability* and *repetition*, also, of impressions from the three *grosser* Senses, are usually *much less* than in those of *Vision*, excepting cases of *very little Interest*, such as *walking*, *sitting*, *changes of temperature*, and the like.

Notwithstanding the *gigantic advantages* here enumerated in favour of *Sight*, I think there is no doubt that a Man will come to forget acquaintance, and many other visible Objects, noticed in mature age, before he will in the least forget *Tastes*, and *Smells*, of only moderate Interest, encountered either in his childhood, or at any time since.

There is an *imposing Interest in Vision*, every way considered, that tends to give it apparent superiority; and, in a case liable to deceive from *associated Interests*, *Facts* must be our safest guides:—I refer every man to himself.

In the course of voyaging to various distant regions, it has several times happened, that I have *eaten*, *once or twice*, of different Things that never came in my way *before*, nor *since*. Some of these have been pleasant, and some scarce better than insipid; but, I have no reason to think I have forgot, or much altered, the *Ideas* left by those single impulses of *Taste;* though here the *Memory* of them certainly has *not* been preserved by *repetition* of the *sensual Vibrations*.—It is clear I must have *seen*, as well as *Tasted*, those things; and I am decided that I *remember* the *Tastes* with *more precision* than I do the *visual* Sensations had with them.

I remember having once (and only *once*) *eat Kangaroo* in *New Holland*; and having *once* smelled a baker's shop, having a *peculiar odour*, in the City of *Basorah*. Now both these *gross Ideas* remain with me *quite as vivid* as any *visual* Ideas of *those places*; and this could not be from *repetition* of *Vibration*, but really from *Interest* in the *Sensation*.

Twenty-eight years ago, in the Island of *Jamaica*, I partook, (perhaps *twice*,) of a certain *fruit*, of the *Taste* of which, I have now a very *fresh Idea*; and I could add other instances of that period.

I have had repeated proofs of having lost Retention of *visual* objects, at various distances of time, though they had *once* been *familiar*. I have *not*, during *Thirty years*, forgot the *delicate* and, *in itself*, most *trifling* Sensation, that the palm of my *hand* used to convey, when I was a Boy, trying the different effects of what boys call *light* and *heavy tops*; but I cannot remember within several shades of the Brown Coat which I left off a week ago.——If any man thinks he can do better, let him take an *Ideal* survey of his wardrobe, and then, *actually refer to it* for *proof*.

After Retention of such Ideas, it certainly would be very difficult to persuade me that "*Feel*, *Taste*, and *Smell*, can scarce be said to "leave *Ideas*, unless indistinct and obscure ones."

Farther argument would be superfluous; and I think that some who give evidence against the *grosser* Senses, may feel a reluctance to acknowledge the *Interests* of these Senses; though this might not hold true of Dr. Hartley.——For my own part, though I have been often remarked for great comparative indifference in eating and drinking, I confess, as truth demands of me, that the *Ideas* left by *grosser* Senses are *more vivid*, and *longer remembered*, than those of *weaker ones*: I say, if the *latter* be remembered *totally without Association*, which, I repeat, *they very rarely can be*.

Whilst conscious truth has obliged me to combat Dr. Hartley's position against the *grosser* Senses, I may have so far *appeared* to argue in favour of a *vibratory* Theory in *general*; but what I advance, I may do with equal justice and safety: for, after allowing the *grosser* Senses all they can *physically* claim, it will still remain undeniable, that nervous *Vibrations*, or their *repetitions*, have *no exclusive physical Power* to leave vivid, precise, and durable Ideas. On the contrary, it is universally allowed, that our most *exquisitely delicate Sensations* (of *least absolute sensual Power*) do leave the *most vivid* and *durable Ideas*: which, I here argue, is *not* of their *Vibratory Power*, but merely by being *harbingers*, or *any how apposited*, to *intellectual Pleasures*, or *Pains*.

I have not in the least argued, nor do I allow, that either *strength*, *acuteness*, or *repetition*, of *Vibration* is at all *necessary* to excite *Interest*; or, to occasion *Association*: but only have fairly allowed, that when either *strength*, *acuteness*, or *repetition* of *Vibrations*, *do absolutely give Interest*, their claims to *Retention* are *not* to be *denied*, nor undervalued.

The amount of all these arguments is, that the *vividness* and *precision* of *Ideas*, and the strength of *Association* and Retention, have a *Source wholly distinct* from, *though dependent* (as is the Mind itself) upon nervous or *medullary Vibrations*.——The whole proceed from conscious *Interests*; and *Vibrations* become the *immediate occasion* of *any* of these, *only when*, and *in so far* as, *they either physically*, or *intellectually*, excite such *Interests*:—*which also* (*we must never forget*) *may be as violently excited* by *a weak nervous Vibration*, *as by a strong one.*

The *dependence* of the *Mind* upon the *Body* is not to be denied; but, it is worthy of remark, that during our lives we generally go on under *continual strong*, and *often violent*, agitations of *Mind* (whether in public or in private life) all which varied and often tempestuous agitations are excited, and kept up, by *no stronger medullary impulses* than the *delicate admonitions* of *Hear* and *Vision.*——It is important to remark that, *in general, nervous* Pain is *not near* so *frequent* in life, *as intellectual Pain*; and in *very few* instances does *great nervous Pain* appear *necessarily* attached to us.——We *may* live long, during all which time it *may not once* take place; and this is so true, that a Man *might* possibly live through a *turmoil* of *intellectual life*, and at length die, without sustaining *a single nervous* pang, *strong enough* to have been circumstantially called up after a month.

Such evidences as these must vastly *question all cerebral Agency*; and it must be allowed, that however the *Mind is limited* by a *condition*, it may not follow that the *condition must* be the *Agent*.

SECT. III. VISUAL IDEAS NOT CORRECT.

Justice demands that I should not stop here, but carry the question yet farther against the *superior vibratory* claims of *Vision*.

If the relicts of *visual Sensations* be *rigidly* examined, the truth is, that though they embrace a *large* outline, and many *intermediate features*; and though, from the *smallness* of their *synchronous impulses*, they maintain *their features more distinct*, (*such as do remain of them,*) yet, they are so *far from* being *durably precise*, and *faithful*, that they *seldom* represent a picture *without an hundred considerable obliterations*, and *many minute distortions*, unless the Sensation that produced them be very *minute*: and the reason is this, that we cannot either *deeply*, or *correctly* feel, though we can *lightly* feel, *many* Sensations at once.

Shew a *Londoner* correct models of twenty *London Churches;* and, at the same time, a model of *each*, which *differs*, in several considerable features, from the truth; and I venture to say he shall not tell you, in any instance, which is the correct one, except by mere chance.

If he is an Architect, he may be much more correct than any ordinary person; and this obviously is, because he has *felt an Interest in viewing these Structures*, which an ordinary person does *not feel:* and here, *Interest* is the *sole* reason of his *remembering more correctly* than his neighbour.

I once heard a person quaintly ask another, how many *trees* there are in *St. Paul's* Church Yard. The question itself indicates that many cannot answer it; and this is found to be the case with those who have passed the Church an hundred times: whilst the cause is, that every individual in the busy stream which glides past St. Pauls, is engrossed by various other *Interests*.

How often does it happen that we enter a well known apartment, or meet a well known friend, and receive *some vague Idea of visible difference*, but cannot possibly find out *what* it is; until, at length, we come to perceive, *(or perhaps must be told,)* that some ornament, or furniture, is removed, altered, or added, in the apartment; or, that our friend has cut his hair, taken a wig, or has made any of twenty considerable alterations in his appearance. At other times we have *no Perception of alteration* whatever, though the like has taken place.

It is, however, certain, that *Sight*, *appointed with Interest*, can retain *tolerably exact* copies of Sensations, especially if *not too complex*; such as of the human countenance, and figure. Yet, the *Voice* will *convince* us, when the *countenance will not*; and, he is reckoned an *excellent* painter, and *no ordinary* genius, who can make a *tolerable* likeness from *Memory*.—Nay more, it is a conspicuous proof of the *inaccuracy* of *visual Ideas*, that it is an *effort of consummate art*, attained by many years practice, to take a *strict likeness* of the human *countenance*, even when the object is *present*; and, among those cases where the *wilful* cheat of flattery has been avoided, we still find in *how very few* instances the best painters produce a likeness up to the life, though *practice* and *Interest* join in the attempt.

I imagine an *ordinary* person would find it very *difficult*, supposing he had some knowledge *of drawing*, to afford, from *Memory*, a tolerable *sketch* of such a familiar object as his *curtain*, his *carpet*, or his *dressing gown*, if the pattern of either be at all *various*, or *irregular*; yet, he will instantly tell with precision, either if his *snuff*, or his *wine*, has not the same character it had yesterday, though both these are compounds.

Beyond all this I may observe, that a *draper*, who is in the daily *habit* of such *comparisons*, cannot carry in *his* Mind the *particular* shade of a *Colour* during a *second* of time; and has no certainty of *tolerably* matching two *simple* Colours, except by placing the patterns in contact.—*Now the same oblivion which affects precision in Colour, must, doubtless, affect precision in the minute* parts of *Figure*.

Ideas of *Vision* are *Feelings* conveyed by more or less *extensive pictures*, whose *features* will be left (*only* those *points* of them) that have conveyed *Interest*: and always *deep*, and *durable*, in proportion to *such Interest*. And, if *visual* Sensations may be compared to *painting*; then, Sensations of *Smell*, *Taste*, and *Touch*, may be compared to *engraving*: but the physical truth seems to be, that the *occasion* of *Vision*, itself, is but a *finer* degree of the *same transient engraving*, upon the perceptive *Surface* of the *Mind*.

CHAPTER III.

OF THE ORIGIN AND NATURE OF THE PASSIONS.

SECT. I. ALL PASSIONS ARE OCCASIONED BY JUDGMENTS.

THE Passions are *mere* intellectual *Pleasures* and *Pains*, *originating* within the Mind. They make us happy, or miserable, in various ways; as is done by our *Sensations*, which also *operate* within the Mind, though they *originate* from *impulses* of *external Objects*.

Two general Facts are evident; that Sensation is not the immediate occasion of Passion; and that the *slightest physical notices* are as efficient as the grossest, to produce all the violence of Passion.—— In many instances the deepest paroxysms are preceded by no *sensual* impulse whatever, but follow a comparison of circumstances in *Memory*, and a *Conclusion* or *Judgment* deduced therefrom.

I think it will be found *universally* applicable to our Passions, that they are *occasioned*, immediately, by our *Judgments*, which appear to be *their proper impulses;* and that they cannot be traced farther, neither can any *conscious* Process be discovered intervening between the *Judgment* and its *consequent Passion.*———This, therefore, I assume as a *Law of the Mind*; and so *general* does it appear, that it is demonstrable, that *every Judgment* we can form (excepting such few as are *totally* void of Interest) must *actually occasion* some degree of Passion.

The term Passion imports *mere intellectual Feeling that is excessive*; but, philosophically considered, *all* Feeling is Passion : and if *excess* is a consideration attached, in ordinary, to make up the *Idea*, this can be only a *vague* distinction, since perhaps no two persons would agree to fix the philosophical point, where moderate Feeling ends, and excess commences. It remains evident, that every *mere intellectual* Pleasure, or Pain, (the slightest as well as the strongest) *is so much Passion.*———In other words, when we *judge* that something exists, or shall exist, that we deem *Good*, or *Evil*, we suffer Passion in the *degree* that we *judge* it to be Good, or Evil; and this effect is equally certain, in its discoverable *consequences*, when too weak to be *immediately* evident to others, or to ourselves, as when it is so strong as to betray all the external violence of gesture.—The *studious*, the *careful*, and the *unfortunate* in life, find their bodily health certainly, though insensibly, suffering under the continual *reactions* of *their Minds*, (wholly apart from the effects of sedentary or other unfavourable habits) and they find relief in a *change of Ideas*, more than in any other change they can adopt.———I think it must be the decision of every intelligent Man, after giving it due consideration, that *every Conviction*, *Conclusion*, *Judgment*, *Opinion*, *Conjecture*, or *Doubt*, *he* suffers, (*concerning* any thing which *in the least interests him*) is the proper *occasion* of that *Pleasure*, or *Pain*, which follows it.

I would not here be understood to say, that our judging that any *Fact* has happened, or may happen, is *properly* the *occasion* of Passion.———What I mean is, that upon *judging concerning any Fact*, if we *also* judge that it is *Good*, or *Evil*, to *us*, or to our *Friends*; in that *Mode*, and *degree*, such Judgment occasions *Pleasure*, or *Pain purely intellectual.*

We are told of a grave Geometrician running about, vociferating like one mad, because he had solved a Problem which *he judged* of *great utility in that* Science:—and, doubtless, when he made discoveries of *less consequence*, he felt *proportionate degrees* of the *same sort* of *Passion*, though in many instances they, perhaps, had not efficiency to relax a feature of his face.—This single case applies, I apprehend, to *Passions* of *every kind.*

The general Principle of this part of the human mental Constitution being thus, I think, satisfactorily evident; if now we consider, that we are continually forming a Succession of *Inferences*, *Opinions*, *Conjectures*, *Doubts*, &c. (insomuch as that such multifarious Affections seem not less numerous than our *Sensations themselves*); it becomes evident, that the Percipient is not only continually *suffering external impulses*, but is also continually *somehow reacting* in *correspondence* with them.

In this account I beg it may be recollected *there is nothing Hypothetical.* It is strictly a description of *conscious Facts*, and their known consequences; and the Principle here assumed, does not in the least depend upon what may be either the *cause*, or the *manner*, of the Process.

Having thus drawn the line between *Fact* and *Hypothesis*, I think I may be allowed to consider *such Facts* together with the various Evidences brought forward in treating *Sensual* Processes; and the most probable conclusion to be drawn from the whole is, that *Motion* is the *general circumstance which occasions all Knowledge.*——And in cases of mere intellectual Feeling or Passion I think we are justified in supposing, that the *rational Principle* (which I have in an early Chapter asserted sets our *Motivity* at work), does, at the moment of *judging, (Good, or Evil) incontinently* act upon the Mind itself, considered as an *extended Reality*, though by what *particular Modes* it so re-acts, may be beyond all human Speculation.

Here it is proper to discriminate, that though the Passions, *themselves*, are to be considered *Simple* Affections, it is not probable they can exist unmixed with the bodily Feelings *occasioned* by *them*. A *Judgment* of *deep Interest* occasions an instant Action upon the whole *nervous System*; which, (thus assaulted and deranged) *re-acts* Feelings from *every particular part*, in which convulsion, however, one part may be more agitated than another. This formerly led to the supposition that each Passion had its exclusive *corporeal region*, as the *Heart*, the *Liver*, &c. and so prevailing is the influence of this *Association* of *locality*, that, to this day, the most erudite and correct writers uniformly retain language, which the most ordinary persons believe to be false *in Fact*; and it is received as rather literal than figurative when we speak of the *Goodness*, or *Evilness* of a Man's *Heart*, or treat that *Organ* as the *laboratory* of his *Morals*.

With regard to the Passions, though *occasioned internally*, the same *general Government* holds that was assumed in the early part of this inquiry.—That is, the Mind *distends* under *all Interests* consciously *unpleasant*, and *relaxes* under *all* Interests consciously *pleasant*.

If any one think that the *corporeal* phenomena do not evince the *universality* of this rule; or, imagine that, because some Passions *incapacitate*, they therefore *relax* the Mind; it may be sufficient to remark, that the *same* Passion, in *different degrees*, produces the most *opposite corporeal effects.*—A moderate degree of *apprehension* will string the muscles of a brave man, to the most complete Action; but excess of Fear, resulting from the *Judgment* of a coward, *fetters* his Mind so that he cannot *properly* act, even to save his life.—But such effects are not peculiar to *Fear.*—A man shall tremble in presence of his *mistress*, who never did so when he looked upon the *enemy*;—and, if we observe a man in a rage which seems to breathe the annihilation of all around him, we shall often perceive him *trembling* and *helpless* as an infant.——It is therefore evident, that though the *corporeal* phenomena indicate the degree of a man's Passion, it is no guide to the *manner* in which *his Mind physically operates*, whether as to distension, or relaxation.

The *degree* of *mental Distension* can be judged of, *only*, by the degree *of conscious occupancy* existing; and by the *capability* for *Feeling*, and for *Action*, which the Man *still retains* during such state.

If here we pause, and take a momentary View of the Mind, as operating continually under *two opposite* reciprocating *Sources* of *Change*; (that is, under both *external* and *rational impulses*) this con-ingredient in the *Feeling* except Fear itself.——Jealousy originates when a child *judges* that another receives, (or is to receive) caresses, or Goods, which itself would receive were the intruder out of the question; and, with equal certainty, *every* Passion takes its rise from a *Judgment*.

It becomes evident that by far the greater number of Passions *necessarily originate in Society*.——If any one think the contrary, let him suppose a child, reared on an Island, and cut off from all intercourse with *animate* Beings; (a very possible case, and one such as has been supposed by others,) I think I may at once assume, that he could never have any Passion which *demands* a *Second person for* its *Object*.

The circumstances of his case would certainly give origin to *Fear* and *Hope*, under the Vicissitudes of the Elements, or, of *Pleasure* and *Pain*; but *what* (or *who*) could give rise to *personal Love*, or *Hate*; to *Sympathy*, or *Affection*; to *Gratitude*, *Shame*, *Remorse*, *Revenge*, *Envy*; or, in short, to any Passion which *must* relate to another living Being. The *occasions* of all these Passions are evidently *furnished* by other persons; and without their Society we never could suffer the Feelings in question.

The association of *a single person*, with the lone Man on the Island, would *furnish occasions* for several Passions, such as Love, Pity, and Grief; but there are yet many others which could not arise without at least a *Third person*; and thus we see that as society and intercourse increase so do the *number* of our Passions.

It remains, then, to be distinguished, that though Passions may be most *strong* where the exercise of Reason is most *limited*, they are most *numerous* in proportion to the *variety* of views, or *Interests*, which we receive.

SECT. III. NO MORAL SENTIMENTS ORIGINATE OUT OF SOCIETY.

The foregoing account of the *origin* of our Passions obviously embraces *Moral Sentiments*, which, in fact, are *nothing* but *Passions*; though they are weaker in operation than those *usually so called*, because they have the Interests of our *neighbours* for *their* Object, whilst our *Passions* are for *ourselves*.

It is plain, a Man cannot feel *Uneasiness* at the proposal of any Act, if he cannot at the same time *conceive* any *Evil* in that Act: while, also, he cannot conceive Evil for another to suffer *death, hurt*, or *fraud*, until he know *what* death, hurt, or fraud *is*; or, until he know, even, so much, as that any Being *exists* which can *suffer Pain* of any kind.

This truth must embrace every *Virtue* and every *Vice*, which must have, each, its appropriate *Object*, and *occasion*, before it can be *first* felt in the Mind, and which therefore must *originate* in Society.

The *Judgments* which are the foundation of *Moral Sentiments* have, I think, their natural rise in what we, *ourselves*, feel upon *suffering Pain from another*, when we also *feel* that we have *not deserved* it.—Our Reason suggests the irresistible *conviction* that it *cannot be right*; and though we may be long enough before we *attend* to the Proposition, that it can be no more right to hurt *another innocent person*, than to hurt *ourselves*; yet, whensoever we consider the relations, it becomes but an intuitive step to perceive, that *it must be so*. This I think may take place before we have enlarged our Views to perceive, from the *general arrangement of Nature*, that it must be conformable to the *Will* of *God* on the ground that he evidently created *Sentient Beings* to make them *happy*: but when our experience and ratiocination does produce this second conclusion, it stamps the distinction between *Right* and *Wrong* as an eternal truth, established by the Creator, and made known to the Creature from unavoidable circumstances of his situation in Society.

With regard to the certainty of Moral truth, I can no more conceive it possible to be an *indifferent* Act to give *Pain* to an *innocent* person, than I can conceive that unequal things are equal.——I know not *how* I am *obliged* to *judge* it *Wrong*, though it seems so natural to judge so; but, equally, I know not *how* I am obliged to judge that *one* and *one* make *two*.

My present Object, however, is not to ascertain *Moral truth*, but how those *Painful*, or *Pleasant Feelings* are occasioned, which we in Society suffer, in every case wherein we think a bad or a good Act (with regard to another person) has been performed; and herein I think it evident, that the *Pain*, or *Pleasure*, is occasioned by a *Judgment*, as is the case in all Passions, and in all *mere* intellectual Pains, and Pleasures, whatever.

I do not indeed think, that the *Pain* we feel at seeing *Wrong* done, arises from the *simple Judgment* that it is *Wrong*: but that such Judgment is always accompanied by a *farther Judgment* (though *not distinguished* at the time) that *we ourselves* are *liable* to such

Wrong; so that, we feel *our own* Interests at stake, and feel Pain in proportion to the degree in which our own happiness *might be* affected.——This Pain, however, cannot be the *occasion* of our judging that an Act is Wrong.——We read of atrocious Acts in history, and judge them abhorrent; but I think the narration of such Facts does not give us so much *Pain*, as many occurrences which we witness every day, the *Wrong* of which we should readily acknowledge is *not the hundredth part so great*, as in those long past Acts above alluded to.

If this reasoning is just, I think Moral *Sentiments* may be traced to *one common root with Pity*, which is a Passion occasioned by a *Judgment* that another suffers *Pain*, aided by a *conjoint Judgment* that *we, ourselves*, are *liable* to suffer the *like*.———It is at the same time obvious, that a Moral *Sentiment* is wholly a different thing from the *Judgment* which occasions it, and both differ from the Moral *Truth* to which the *Judgment* relates.

In referring "the *Feeling* to the *Judgment*" in cases of *Moral Sentiment* (which, in other words, is referring Moral Principles to *Reason*) I find myself countenanced by the decision of Professor *Stewart*; but have been obliged to differ from him in this, that while he *limits* the *Principle* to *Moral Sentiments only*, I apply it, *generally*, to *all Passions*, or, to *every Feeling merely intellectual.*

In the Philosophical Essays (Essay I. Chap. IV.) it is said "The "decisions of the Understanding, it must be owned, with respect to "moral truth, differ from those which relate to a mathematical

" Theorem, or to the result of a chemical experiment, in as much as " they are always accompanied by some feeling or emotion of the " heart; but on an accurate analysis of this *compound Sentiment*, it " will be found, that it is the intellectual judgment which is the " ground work of the feeling, and not the feeling of the judgment."

Now, while it appears I have the honour to agree that the Judgment occasions the *Feeling* in *Moral* Sentiments, I have argued much farther, that *all intellectual Interests whatsoever (Passions, Moral Sentiments*, and *all other intellectual Pleasures*, or *Pains) are occasioned* by *Judgments.*———In other words, I say our *Judgments* are a series of *intellectual impulses*, which, reacting upon the Mind itself, produce a *continual Succession* of *intellectual Pleasures* and *Pains*; in some way *corresponding* to that in which, our continually varying *Sensations* produce their respective *sensual Pleasures* and *Pains*.

I am so satisfied of the *generality* of the *Principle*, that I have already advanced in Sect. I. that every intellectual *Judgment* we form, in whatever department of judging, produces an intellectual *Pleasure*, or *Pain*; and though the passage here quoted from the Philosophical Essays, limits the Principle to *Moral Sentiments only*, and *expressly excludes* the Judgments or Conclusions we form in *scientific* pursuits, I think I may appeal to the candour and consideration of its enlightened author *whether* the decisions of the Understanding relating to a *mathematical Theorem*, or to the result of a *chemical experiment*, *are not* accompanied " by some feeling or emotion of the " heart."—The story of the overjoyed mathematician is a far-famed evidence with regard to one of these Sciences; and it is easy to discern, that the same Principle operates in every Conclusion we can form.———No man engages in any *inquiry*, whether mathematical, chemical, or *aught else*, without feeling an *Interest* in every *new* conclusion he shall form (always excepting those few Judgments which are strictly indifferent); and it may safely be asserted, that *most* of our decisions *(of every kind)* possess *some Interest*, that is, some Pleasure or Pain:—every one of which Pleasures, or Pains, are therefore produced by the *Judgment previously formed*, precisely in the same way that our *Moral Judgments* occasion our Moral *Sentiments*.

After observing the existence, and operation, of this *Law* of the *Mind* in all the Arts and *Sciences*, as well as in *Morals*, if we turn to the ordinary occurrences of life we find it equally constant therein. If a master *judge* that his substance has been lost, without fault in his servants, this *Judgment* will *occasion* only *regret* for his loss; but if he *judge* that his loss is owing to the *fault* of his *Servants*, this *Judgment* will *occasion Anger*.—But, presently, if the Master learn circumstances which oblige him to *judge* that he has been *mistaken*, he will *cease* to feel Anger at his Servants:—and if he has reproached or punished them, the instant he *judges* that he has done wrong, his *Judgment* will *occasion* the *Feeling of Remorse*.——With equal certainty, *every Judgment* we form, (from those of the deepest import, down to those wherein we deem that a *Tailor*, a *Bootmaker*, or a *Cook*, has done *ill*, or *well*, in suiting our directions,) occasions *some degree of Sentiment*, or of *mere intellectual Pain, or Pleasure*.

The important conclusion which follows this *general Fact*, has already been stated at the end of Section I; and its correspondence with the *general Hypothesis* of *mental Motion* is manifest.

SECT. IV. THE CONSCIOUS AND PHYSICAL PROCESS OF HOPE.

It may be said, generally, that every *judged* approaching event of our lives, which possesses *any Interest*, is the *occasion* of either *Pleasure*, or *Pain*, which in every such case exists under the name of *Hope*, or of *Fear*. I will therefore briefly consider the conscious Processes of both these Affections; and point out their physical consistency with the general Hypothesis.

The term *Hope* signifies our conscious Affection under qualified or *doubtful* expectation of *Good*, or, of what we wish: in which state we have a compound or, rather, an *alternating* Feeling, which is made up of *Pain* and *Pleasure*, *both arising* from our *Judgments*.

The Pain here cannot be denied, because nothing is *Good to us*, however Good in itself, unless we *wish* for it; which Wish or Desire follows "a present Uneasiness:" but the *Judgment* of the *probable* approach of the Thing desired, gives a pleasing Feeling, which *more* than counteracts the painful one, and preserves a state of Mind occupied, yet moderately pleasant.———Hope, then, is a lively cheerful state, during which the Mind is finely librated.

Now, as we may suppose, that *all Feelings* are occasioned by *one general circumstance*, or that *intellectual* Pleasures and Pains (as well as *sensual* ones) are occasioned by *Motion*, it then appears (to the account already given of other Processes,) that the *Pleasure* of *Hope* is made up from the *Motion* of *Uneasiness*, alternating with *a Motion occasioned by the Judgment* that we probably may reach the desired Pleasure: and this is analogous to the *alternation* experienced during *sensual Pleasure.*——It is at least a *conscious* Fact, and not Hypothetical, that *Hope,* (however it may operate *physically,*) is actually an *alternation* of *Hope* and *Fear,* in which these two Feelings succeed each other, so long as we wish any event, until it either arrive, or we despair of it: and it appears extremely suitable to account for it by *Motions, analogous* to the *alternating Motions* which we know must exist in the *Nerves,* during the Process which affords us *sensual Pleasure.*

When a doubtful chance of distant Good, gives place to *certainty* of its *presence,* we feel that *Pleasure* called *anticipation;* and here, the pleasant Affection being no longer opposed by the *alternation* of *Fear,* or *doubt,* we relax into an *intellectual* enjoyment, in which we have no uneasy Feeling except the Uneasiness which prompts us: whereas during *Hope* the *Uneasiness* was *augmented* by *Fears,* or *doubts.*——Thus the Pleasure of *anticipation,* though still imperfect, is a much greater Pleasure, than that of a *Hope* of the same enjoyment.

It appears true, that without the prospect of possible gratification the Mind never moves with any *Desire* for Good. And, if it has once so moved, it will subside very soon after *conviction* that the Thing *desired* has become *impossible.*

Such reduction of the Mind, is the state of *Despair* in regard to the Thing previously *Desired;* and in whatever pursuit this takes place, the Mind, no longer looking in the same direction, turns its attention to *some other* Object.

Here again we discover the specific *identity* of *Desire* with *Will*

It is very well known a Man *never wills* what he *knows* to be *impossible;* and it seems equally in his constitution *never* to *desire* what he *knows* to be impossible.

Agreeably with this it is said, that most malefactors are tranquil, after condemnation: and such of them as cannot approach their fate calmly, are those of imbecile Minds, whose rational capacities cannot hold *continually* the *conviction* that their fate is *inevitable.*

From the nearest view we can take of the nature and consequences of the two extremes, (*complete Happiness* in regard to *all* Things, and *complete Despair* in regard to *all* Things) we perceive, that no Action takes place without a *Motive;* for, in either of these extremes *all Action ceases,* because *all Motive* is *absent.*

Among the liveliest cases of *Hope,* I may instance a Man struggling to make provision for the welfare of a family he tenderly loves; and having a *rational prospect* that by persevering he may succeed. —In such case, though his expectation be not confident, his Mind will be alert; *all* his energy duly exerted; and his ability for *every* sort of *beneficent moderate Action* at the greatest height; because his Mind is *finely poised* under the mediocre occupancy, and alternate Motions, which go to constitute the state of *Hope.*

If instead of the *mixed* Affection of *Hope* that he shall succeed, the Man labour under a prevalence of the *simple* Affection of *Fear* that he shall fail, this Fear will doubtless increase the *Tension* of his *Mind;* but this increased Distension, when carried to extent, will render him *less capable of correct Thought* and *Action,* consequently *less able* to provide for his family, as every Man is found to be whose Mind is oppressed by *Fear,* or *over* Anxiety.

This account of *Hope* (during which, the *Tension* of the Mind *alternates*, between *Uneasiness* under want of our object, and the *relaxing expectation* of that object), is so applicable to the Hypothesis (as described in cases of *Sensual* Pleasure) that it might be thought I had nothing but the Hypothesis here in view. But I appeal to the bosom of every Man, whether a state of *Hope* is not, strictly, a state of alternating *Uneasiness* and *expectation*, however long the time may be, until we reach the apparent certainty of our wishes, or else yield to disappointment.——All wishes or desires are already shewn to arise from *Uneasiness:* it is beyond dispute that every case of *Hope*, is *Hope* in *relation* to *some Uneasiness* which it is to relieve; and if the *Uneasiness* were to *cease*, the *Hope* would *cease also.*

Thus, during Hope, *Uneasiness* alternates with the *Pleasure* of expectation, in the very *similar* way, that, during a state of sensual Pleasure, *Uneasiness alternates* with *pure Pleasure*; and thus a state of either *sensual Pleasure*, or *intellectual Pleasure*, is equally a state wherein the Mind is playfully *bandied* from *Distension* to *Relaxation*, in *quicker* or *slower* repetitions, according to the particular nature of the Pleasure.

SECT. V. CONSCIOUS AND PHYSICAL PROCESS OF FEAR.

The term *Fear* signifies the Affection we feel under a *Judgment* of the approach of *Evil;* and it is the most powerful of intellectual Passions.

Fear appears to be a *simple* Affection, occasioned by dread of expected Evil; and it produces a Desire for safety or Ease. So far it follows the nature of *sensual Pain;* which is a simple Affection of anguish, raising a Desire for Ease.

When the Mind *judges* the *approach of any* event, however Evil in itself, generally considered, if the Man *expect no Evil,* then, *all is well.* —When alarm is given that a ship sinks, *Fear agitates the whole crew;* and their extreme anguish is manifest: but, if one of the number be *content* to die, what follows? He is *free* from Pain, merely because he judges the change no *Evil;* and here his Reason is bent to some other wish; either to reach the joys of a future life, or to avoid the Evils of the present one. He has the *same* expectation of *death* which tortures his comrades; but, under it he is tranquil, because his *Judgment* does not inflict any painful emotion on his Mind; whilst they are agonized by the simple Affections of the *Fear* of death, and the Desire for life.

Here, if the Evil had been *sensual* Pain, the Distension (though not the external shape) of the Mind would have been similar; being the *result* of a *Motion* which produces *Pain* and a *Desire* for *Ease.*—It is perfectly evident, that though Fear is Passion, and *Desire* indicates *Action,* their effects are *not* of *opposite tendencies,* as is the case with Motions that exist during *sensual Pleasure,* and during *Hope;* because we do *not feel any* moment of *Pleasure,* (or tendency to *mental Relaxation,*) during either *sensual Pain,* or *Fear;* though we certainly feel Pain (*Uneasiness*) every moment during *any state* of *Pleasure,* so long as the Pleasure continues.—Hence both *sensual* Pain, and *Intellectual* Pain, *are consciously* and perhaps *physically* analogous Affections; each being (in most cases) *followed* by a *Desire,* which, by its active tendency *distends* the Mind, over and above the *Tension* caused by sensual Pain or Fear: and, by the united efforts *either* of *Pain* and its Desire for Ease, or *Fear* and its Desire for safety, the Mind becomes *distended* to the *utmost* degree of *inflexibility*; but on the contrary, the accession of *pure* Pleasure (removing its previous *requisite Uneasiness*,) produces the *very opposite* result, by *relaxing* the Mind to complete indolence.

As it is, however, possible for sensual Pain to banish Desire for Ease, *by banishing Memory* of Ease, so may Fear, if it amount to Despair, in like manner banish all thought of safety; in which cases, sensual Pain, and extreme Fear, are not only *continuous* Affections, but they become strictly *simple* Affections. Such extremes, however, are perhaps only momentary, or of very short duration.

SECT. VI. PLEASURE AND PAIN DIFFER IN KIND.

I take a fresh Section to mark, emphatically, that the Affections which constitute a state of *Pleasure* (either sensual or intellectual) being consciously different (and, in part *opposite*) to the Affections of *any sort* of *Pain*, it must follow, that *any Theory* which makes *Pain* to be produced by a *mere increase of Pleasure*, is not the result of a just view of Consciousness, and can never give conception to the true *Structure* of the *Mind*.—Farther, by supposing *Pleasure* to be the *ordinary* state of Man, such Hypothesis is as inconsistent with a religious belief of a future state, as it is with the known conscious operations of Pleasure and Pain.

The *conscious Facts* in question here, are not matter of abstruse research, but of plain common Sense.——If any Man find, that all his *particular Pains*, are *only so many particular Pleasures* carried beyond a due limit, he must condemn my statement; and then, he must look *for Pleasure in every possible Uneasiness* which he can *detect* in its *first stages*.——But if, on the contrary, he find *Pains* come *first*; such as raise Desires for *wine*, *music*, *fruit*, *power*, *society*, and the like; and next find, that an *opposite* sort of Affection *agreeably reduces* any of these, in which Process the *Pleasure lives* and *dies* with the *Desire*; (and, if he do *not ever search* for *any* definite Pleasure, without *first feeling* the *Uneasiness* which it answers to) then he may, perhaps, admit my position.

CHAPTER IV.

OF DREAM AND REVERIE.

SECT. I. ABSENCE OF SENSATION MAKES IDEAS VIVID.

In the Hypothesis of a *spherule Mind* which receives *external* impressions from *Undulations* of its *Surface*, it is obvious how all undue Affections of the *Nerves* and *Brain* must affect, *alter*, *impede*, or even wholly *stop*, the *internal* Motions of the Mind; by altering, or oppressing, the *mental Surface*.

Upon this Principle we may possibly account for *insanity* of all kinds, *hypochondriacal* Affections, *fluctuations* in *Memory*, and, for the phenomena of *Dreams*.

The nature of Dreams has been considered among the most occult of all mental Processes; though, in many respects, it seems to differ very little from Reverie, of which we might hope to have some better acquaintance, inasmuch as in this last state we are awake, and can reduce the question to narrower bounds.

In both cases, alike, we are deprived of the three grand aids, *general* Sensation, *general* Memory, and, proper *locomotive Power.* ——A Scene presents; we become *sufferers*, and *actors*, in *Mind;* and believe all real. Next, we are *ideally* carried along with various changes; during all which, however, the Mind attends to nothing (and indeed is totally ignorant of every thing) except the scenes which *delude it.*

The usual difference herein between Dream and Reverie is, that in the former the *restraint* is greater, the *appearances* seem *more vivid*, and the *deception more deep*: but, there are some cases of *Reverie* wherein this distinction, perhaps, altogether fails; and the objects therein seem *realities*, as they do in Dreams.

Here, one of the first questions that arises, is, as to the means by which *mere Ideas*, during Sleep, impress us with the conscious vividness of *Sensations*. And, upon consideration, I think such deception may be accounted for, with some degree of probability.

Strong and weak, vivid and faint, are comparative terms; and, vividness, and faintness, manifest themselves to be what they seem, partly by means of *comparison*, or the want of it; besides which, the *Law of Interest* shews, that the existence of a *stronger Interest* prevents our having a Feeling, (or, at least, so deep a Feeling,) of a synchronous *weaker Interest.*

There is not, perhaps, more difference between the vividness of a Picture *seen*, and the same quickly *remembered*, than there is between the *apparent lustre* of the Moon during a fine night, and its lustre on a fine day.——Now, we know, the Moon appears with diminished lustre in the day time, only because it shines upon us *synchronously* with the transcendent lustre of the *Sun.* So I think it must be with *Ideas* seen during *Sleep*, when proper Sensations are absent, and, in the general darkness, these Ideas shine with a *sole* lustre.

Looking at a scene, and then remembering it, is very analogous to looking at the Heavens during a fine night, and then during the day. In this last case, we see none of the Stars which we saw at night; which loss may be compared to the loss of minute features of a scene remembered: yet, we see the Moon which we saw at night; but, so dull, that it seems, as it were, only the *Idea* of its former self.

In Reverie, we know, it is in part the same. *General* Sensation is then excluded by the *Law of Interest*, because Interest (however void of a real Object) is always the occasion of Reverie.

When the Mind is very little occupied by real objects, we fall into *Reverie*.——A scene and ideal incidents present, and we are carried along, just as we might be by a fascinating romance, which takes no denial until we get to the end. It matters not though the Reverie be as changeable, improbable, or *impossible*, as any thing in fashionable conceit; it hurries us on with irresistible spell, until some foreign shock break the enchantment.——During this process, however, besides some low sense of vigilance, as our *Eyes* are *open*, there is a *vague* admission of Light, (though not of definite Objects,) owing to which we find, that *Visual Ideas* in *Reverie*, are not so vivid as those in Dreams, except it be in some rare cases.

But as a proof that they may be so, when Vision is obstructed, we find in Reveries which some times visit us during darkness, that visual Ideas have the vividness of reality, even when the Intellect is perfectly in order, and conscious of vigilance.——The like also has, in *extreme cases*, happened to persons in day-light, although they laboured under no derangement of Intellect.

SECT. II. LOSS OF MEMORY OCCASIONS INCONSISTENCY IN DREAMS.

In *Dream*, as in deep *Reverie*, the *general conscious* Fact is, that *Imagination* exists, and *seems* to be *reality*.

The greatest difference between these two Processes perhaps is, that Reveries, however various, and perhaps improbable, usually go on in a concatenation of Ideas: whereas, in *Dreams* the circumstances are not only in most cases preposterous, or inconsistent; but every now and then the *scene is changed* upon us; and, *forgetting* the past, we become sufferers, and actors, in a *new* play.

The reason of concatenation in Reverie is obvious; because *Interest* occasions us to attend, exclusively, and we follow the subject so long as the Imagination is suffered to supply a train of Ideas; that is, until some foreign impulse interrupt the process.

In Dreams, on the contrary, we are called to attend to some *partial external* shock, whilst the *general* play of *Sensations*, and *Ideas*, is *impeded*, or *stopt*; and after a short desultory attack of this kind, the shock ceases, or, perhaps, is immediately replaced by a different sort of external stimulus, which I suppose to proceed from *nervous Motions*, excited by irregularities of the Body.

Here, however, I do not mean that the Nerves supply *trains* of *ready formed Ideas*; but only, that nervous impulses *partially rouse* the *Intellect;* which last will (besides *some* Ideas of *Memory,*) be impressed by *other Ideas,* of the *complexion* of the *bodily health,* as to being *good* or *bad,* painful or pleasant.

In the account usually given of Dreaming, I believe the *principal Fact* is *supposed* to consist in our being therein deprived of *Volition;* which, doubtless, is one of the prominent considerations in ordinary Dreams; but, there is a circumstance, which I think of *more importance* towards accounting for the *inconsistency,* and other phenomena, of Dreams: which is the *Fact,* that in such cases *Memory* is either *greatly impeded,* or, in *some* instances, nearly *cut off.*

In by far the greater number of Dreams, we find ourselves reasoning, and ideally acting, (though in a *limited view,*) just as we would do if awake: in the midst of which, the scene is *suddenly changed* upon us; and we are *confined* to the *new* appearances, *without Memory of the past.*——Thus we converse with a *friend* who is *dead, without remembering* that he is so; and have an interview with another friend, *forgetting* to feel any exception that he is more like *some other* person than himself.——At other times we have so much *partial Memory* as to inform us that such things are *wrong;* and we *question* the *inconsistencies* before us; when, in the midst of this *rational* Process, the scene *changes again;* when, *forgetting* the Dream just gone by, we commence, and are *confined to,* a *new* adventure.

It is a Fact *peculiar* to *dreaming,* that we are *always confined* to the *present* scene, or subject; and *cannot wander* in *Thought,* as we may during *Vigilance:* and this seems to be *merely for want of Memory.*

As a farther evidence that it is the *interruption*, the *general clog*, or *stop*, of *Memory*, (as well as of *Feeling* in *general*,) that produces *inconsistency* and *disjunction* in Dreams; we find, that upon *waking* after *several* Dreams we can, by the aid of *general* Feeling and *Memory* (thus restored), recollect the remarkable features of our disjointed ideal adventures.

Persons whose health subjects them to frequent or continual dreaming, are so habituated to these *changes*, that very *few* of them are *circumstantially* remarked after waking. But, it may be observed, that Dreams kept up by disease or irregularities of the bodily functions, are generally far more preposterous, inconsistent, and disjointed, than Dreams which follow intellectual Affections: which Facts support the arguments here advanced.

It has been justly remarked, *that without Memory* we could have no Idea of *Time* or of *Motion*; to which I would add, in a word, that without Memory we can have *no Knowledge* of the *past*, whatever. —Without *Memory* a mother could not know her child from the pillows it lies on; though she could *see* it as well without Memory as with it. It is *remembrance alone* that informs her, that the *visible Object* before her is *a child*, and *her own* child.

Considering, then, how impossible it would be to carry on *thinking*, during vigilance, if *Memory* were any how *interrupted*, or considerably *impeded;* and supposing Dreams to be occasioned by *irregular* attacks of *nervous partial* impulse upon the Mind, at a time when the mental *Surface* is so *generally oppressed*, by Body, as to prevent its *general* Motion, may we not suppose, that the interruption, or clog, thus given to Memory, is the occasion of the *incoherence*, and *inconsistency*, found in Dreams?

If the facts be rigidly examined, I believe it will be found, that in Dreams, when we seem to *Act* in any way which on waking we deem to be unaccountable, or *improper*, the occasion that leads to such Act is an *interruption*, more or less, of *Memory*. And, what we *suffer* may be traced to the Body in such innumerable instances, as leave little doubt that it always *begins* the Process.

These Facts agree with the opinion that Mind cannot act without the stimulus of Body; for if the Mind be completely at rest in sound Sleep, (as we must believe it to be in *some* cases of insensibility,) then, it cannot move again until *Nerve* stimulate; and if it could move alone, it might *think without a Body*, which I believe is what scarce any Philosopher will now admit.

Upon the whole I think, that either *interruption*, or *total stop*, of *Memory* (including *all degrees* of impediment, according as the *Surface* of the Mind, in *general*, is clogged during Sleep,) is the occasion of *inconsistency*, and *incoherence*, in ordinary *Dreams*. And, upon the *Hypothesis* of a *Spherule*, it appears how *Memory*, and *other Feelings*, should be *clogged*, or *partially* permitted, and *partially* stopt, by an *Elementary Matter enveloping* the Mind, and preventing the *general free Motions* of its *Surface* during *Sleep*.

SECT. III. DREAMS RISE FROM NERVOUS IMPULSES.

It is certainly true, that a day passed under great Anxiety of Mind, is as likely to produce a correspondent Dream, as a night passed under mere bodily derangement: perhaps more so.

If when the Mind is once at rest, it cannot move, until Nerve stimulate again, how then comes a Dream to be produced by an occasion merely intellectual?

To account for this it may be observed, that all Anxiety, and intellectual Passions whatever, have very powerful effects upon the Body; altering the Processes of digestion, circulation, and secretion; and producing considerable changes on general health. This is so much more the case with a person whose nervous system has been at all shook, that a violent Passion of any sort, or almost any agitation of Mind, generally produces *immediate* and *considerable bodily derangement.*

This re-action of the Mind upon the Body being matter of Fact, it may well follow, that in the night succeeding to a day whereon a person has suffered much from Anxiety, or any Passion, the nervous System will be put by the derangement of the bodily functions, into a state extremely liable to inflict irregular impulses upon the Mind, during Sleep: and, when any throb of Nerve is strong enough to rouse the Mind to partial Consciousness, then, the *deep Feelings* of the preceding day will revive in *partial Memory;* and, *generat*

Memory being prevented, the Intellect may cherish this deep Interest for a time, with *some consistency*.

Here we must suppose the Mind to be struggling under the vast disadvantage of *interrupted*, or *confused*, Memory; varying in degree, and manner, as the *Surface* of Mind is more or less *generally* oppressed; and, while the Mind is moved by this *disjointed Memory* of its own *internal past* Feelings, it may be suffering considerably from the irregular *bodily* impulses, because Dreams, in general, are known to take the complexion of, and are even an index of, the state of Health. In this way, varieties of new and foreign scenes, or *Ideas*, may be thrust in among the old ones; and, by these means, we may conceive every possible *confusion*, and *disjunction*, that is really found to exist in Dreams.

Thus, though the Mind itself cannot be supposed to *begin* a Dream from *sound* Sleep; yet, when once begun by nervous impulse, the Mind may *assist to carry it on*, and *vary* it into all possible experienced Modes.

The subject of Dreaming is extremely dark. All that I have had in view concerning it here, was to state some few of the general Facts, particularly the *loss of Memory*, as conceiving it more important, or, rather, *more the rigid Fact* that takes place, than loss of Volition; because, strictly considered, we therein do not lose Volition, but only locomotive Power: and sometimes the Volitions in a Dream are so strong, that we actually perform the Motions which we will to perform, as well as if we had been awake.

By some of the earliest inquirers, the Mind of a Man in his Body, has been compared to a person in a Cave, with his back to the light, perceiving the shadows of others passing its mouth. Now, in somewhat a different way, I think, the *Mind* of a Man, during *Sleep*, may, not unaptly, be likened to one in a totally *dark Cavern*, who, when he dreams, perceives, in the *general darkness*, a light and some few Figures in one *particular quarter*; which soon disappear, and are succeeded by others, of quite a different sort, which suddenly appear in *another* quarter. And, in sad truth (to extend the simile) when he wakes he is still in the Cavern; but, only, it is much more enlightened by the presence of *general* Sensation, and *general* Memory.

This Fact, therefore, of the *loss* of Memory, and such others as are here advanced, I have applied to the Hypothesis of a *spherule Mind*, in order to shew the probable nature of Dreams. And, whilst this loss of Memory is the *most important Fact* of the whole, it appears agreeable to the *spherule* Hypothesis, and, to the account given of the *physical Process of Memory*, wherein I have supposed all revived Feelings are accompanied by *Motions* in the Mind's *Surface*: and, that when its Surface is *generally* compressed, (or by *any means* kept *equal*,) so far *general* Feeling must be *stopt*, and *partial Feelings*, (either of *Sensation*, or *Memory*,) must happen from *partial* Motions during a *general* compression.

The various considerations that occur in regard to Dreams, are, perhaps, no less diversified than those of vigilant Consciousness; and until we are better acquainted with the nature of our waking thoughts, it may be a vain search to inquire after that of our sleeping ones, especially since the operation of Reverie, duly considered, is perhaps more mysterious, if possible, than that of dreaming.

In frequent instances of *Reverie*, though we are fully satisfied of not being asleep, the Ideas that pass in review are as vivid as if real; and we ideally suffer, and act, in scenes a thousand miles from where we really are; or, perhaps ideally assist in a drama that was actually rehearsed twenty years ago. The chief difference is, that in *waking* Dreams, I think, we always act in our own characters; owing, I suppose, to our having the benefit of so much *Memory* as is necessary to sustain character; but in sleeping Dreams, owing to the Mind being more generally, and more heavily, equalised by exterior compression, the *loss of the recollections of what is right* leaves us, often, to act with *impropriety*.

CHAPTER V.

OF PERCEPTION BY MOTION, CONTRASTED WITH OTHER THEORIES.

HAVING now gone through the examination of the various concurring Evidences in support of the Hypothesis of a *spherule Mind*; and having thus shewn the strong probability of the opinion held by so many profound Philosophers, that the Mind and Body are *physically connected*; it may here be proper to compare such a mode of Perception, with that singular modern Hypothesis, that we perceive external Objects *themselves*.

And first, I obviously agree, that no *Sensation*, or *Idea*, resembles any *quality* of an external Object.———At the same time, I think it impossible to make any supposition against the rule, that *nothing* can act *where it is not*, any more than *when* it is not.———Any Theory of Perception inconsistent with either of these, I must think wide of truth.

Now, if we perceive external Objects *themselves*, we every night perceive *Stars, themselves,* that are many Millions of miles distant from us.——Or, if we be present to them, when perceived, it follows, that the Mind takes, seemingly, as little Time to *travel* from us to a *fixed Star,* as the Eye takes to open itself.——Either of these suppositions appears so improbable, that I think we cannot chuse but reject it.

Let us, next, inquire whether Perception of external Objects by the *mediation* of other Bodies (and by *Process of Motion thus communicated* from the distant Object to the Mind) is inconsistent with either of the two above-mentioned conditions.

With regard to that one which requires the *presence* of the Object (at least by mediation and Motion of other Bodies) it is evidently satisfactory.——And, as for the other, I can see no reason why it should follow that Sensations, or Ideas, *occasioned* by *Motions, must* be either an *Image,* or any resemblance, of any *quality* of the external Object which conveys the Motion, whether it do so immediately, or *mediately.*

Motion is not an *Image,* nor any thing like one. Neither is it a *quality* of Body, (though Mr. Locke has *called* it a *primary* one) because Body is as much Body if conceived at rest, as when in Motion.——This being so, Motion is merely an *Accident;* and though Feeling is a different thing from Motion, yet if it resembled it, this would not amount to a resemblance of any *quality* of Body: for so unlike is either Body, or Extension, to Motion; that while it is *essential* to the two former that *all* their *parts co-exist, no two parts* of Motion can ever co-exist.———But the *Conscious* truth is, that *no Sensation,* or *Idea,* resembles Motion, any more than Motion resembles *Extension*; and there appears nothing incompatible in the *co-existence*, and co-operation, of *Extension*, *Motion*, and Feeling; while, at the same time, none of these three bears any resemblance to either of the others.

It thus appears that Perception furnished by the *mediate* communication of Motion, from external foreign Bodies, to an extended Mind, is perfectly consistent with the almost unanimous opinion of Philosophers in all ages; and, at the same time, wholly exempt from any objection that Feelings, thus communicated, need be *resemblances* of the *Extension* of the external Bodies so perceived.

In asserting the non-existence of *Images*, or *resemblances*, in *Ideas*, and that *Ideas* are not Things numerically distinct from the Mind itself, Dr. Reid has taught us well.———But, to step beyond this, and say, that *therefore* we *perceive* Objects *themselves*, is adopting an *Hypothesis*, and one, also, that has met the general disbelief of scientific Men, from Plato downward.———In this inadmissible *Hypothesis* I think we see the *fruits of* the Hypothesis of *Non-extension*, the adoption of which reduces a Philosopher whose Science had enabled him so far to explode false Principles, to the prodigious difficulty of supposing, that we can perceive the Stars without any *medium* between them and us: while, on the other hand, upon the supposition that the Percipient is extended, (and that *Feeling* is *occasioned* by *Motions* communicated from Bodies by the intermediation of other Bodies,) every objection is removed; and it becomes as obvious why we should perceive the Stars, as why we feel the contacts of the nearest Objects.

If the advocates of the Hypothesis that we perceive *Objects them-*

selves, think that such Hypothesis is saved by the consideration that we are ignorant of *efficient causes*; or, if they chuse to say that things *may* Act where they are not; I will not here object that a *half may as well* be a *whole*, and all *conceived* necessary truths equally visionary; but shall observe, to the point in hand, that I do not conceive this account at all affected by our ignorance of the *efficient cause* of changes in Bodies, whether by *impulse, repulsion*, or by any other Mode.—It matters not that we cannot tell what medium keeps asunder, and yet holds together, two particles of Matter; any more than we can tell what it is that performs the like office between our *Sun* and his *Planets.*———All this is acknowledged; but our Evidences nevertheless assure us that it is *something extended*,—and something capable of *resistance*, otherwise the parts of *Matter*, when *compressed*, must *meet*. It appears no more possible to deny this, than to *deny, at once*, the Existence of *Extension itself*:—Or, to deny that Bodies move, because we cannot tell *how*.

I think, on all grounds, we are warranted in supposing, that changes in our *Feelings* have the same sort of *general occasion* with changes in our *Bodies*, namely *Motion*.

The general account of Perception herein given, is as agreeable to the best views of *Locke*, as it is to the arguments and Evidences advanced throughout this Essay; and though it must be confessed that he clouded his clearer prior discernment, by the subsequent error of supposing our *Ideas* of primary qualities of Bodies to be *resemblances* of those *qualities*, I am persuaded that his views in other parts of his Book, will be found liable to little objection.

Of his agreement with the View herein taken I have already cited some instances, perhaps sufficiently conclusive;—and in the present case I may observe, that in Book II. Chap. IX. he says,—"Having "Ideas and perception being the same thing,"——and, presently after, he adds "The perception of Ideas being (as I conceive) to the Soul "what Motion is to the Body: not its essence, but one of its "*operations*."——Now, since he conceived Ideas are "*operations* of "the Mind," he could not, at the same time, think that the Mind's *operations* are its *numerically distinct* Objects, though he often, *figuratively*, calls them *Objects*; and, if not such, he could not think them *Images* presented to the Mind for contemplation. Besides this it already appears, from passages which I before quoted, that he considered *all Ideas* to be *mere modifications* of the Mind, and not Things substantially distinct from it; and no figurative expression, or subsequent inconsistency of his language, can wholly obscure that such was his better discernment.

Locke's doctrine of the *Origin* of our *Knowledge*, also, I am obliged to think, is quite consistent with his doctrine of Ideas; or indeed, I grant, that I should rather say his *explained opinion*, than his *uniform doctrine*.————He indeed vaguely says that *Reflection* is the Source of all our *intellectual* simple Ideas; but he repeatedly explains, in *substance*, that the *Mind itself* is the *Source*, and that *Reflection* is but the *occasion* of such Ideas: and in the following passage he conveys the strict truth, that Reflection is only the *Mood during which* the Mind best elaborates such Ideas. In Book II. Chap. I. Sect. XXIV. he says—"In time the Mind comes to *reflect on its own* "*operations* about the Ideas got by Sensation, and thereby stores "itself with a new set of Ideas, which I call Ideas of reflection. "These are the impressions that are made on our Senses by outward "Objects that are extrinsical to the Mind, and *its own operations pro-"ceeding from powers intrinsical* and *proper to itself*; which when re-"flected on by itself, becoming also Objects of its contemplation, are, "as I have said, the originals of all Knowledge."——Surely nothing can be more strongly implied, than is here done, that he thought Reflection only the *mood during which*, intellectual Ideas flow from their *Source;* and that such Ideas are actually "*the Operations* of the "Mind by *Powers intrinsical,* and *proper to itself;* which, when re-"flected upon become" (he *figuratively* says) "*Objects of its contem-"plation.*"

Now, not only is this explanation of the origin of our Knowledge perfectly consonant to that which I have all along endeavoured to afford; but I am obliged to think (and am strengthened in opinion thereby) that it is *essentially* the same with the doctrine of *Professor Stewart* himself.——The only difference on this head is, that I think (as Locke did), that in thus acquiring *simple Ideas,* "the *Under-"standing* is *merely passive;* and whether or no, it will have these "beginnings, and *as it were materials*" (*as it were* serves here as a *gloss* for other parts) "of Knowledge, is not in its own Power."—Upon this ground it is, that I think the term *Faculty* wrong applied, to *any particular Mode* by which the Mind elaborates its Ideas.

The chief difference between the view which I have endeavoured to render manifest with regard to Consciousness, and the prevalent doctrine of the day, appears to be, that I consider *Reflection* no other than *Attention* to *Single Percipience* which, also, may be reviewed by Attention to its remembrance, instantly, or later:—— while, on the contrary, Reflection according to the prevalent opinion, means *Attention* to a *Perception* which *accompanies* every *Sensation*, *Remembrance*, *Passion*, and *Judgment*, we suffer: *all* which are *themselves Perceptions*, but, nevertheless are supposed to be *Objects* of this *accompanying* Perception, though at the same time they are (as Ideas) *denied* to possess any *objective* existence.———That there is some inconsistency in this last, I must think evident; or else the terms must be reconciled to each other by possessing some import which they do not in the least convey to me.

Beyond this, and by far the most important difference between my View and that opposed is, that I have argued, and I trust have proved, that we have *primary* Feelings from *extended impressions*, which *prove the Extension of the Percipient*.

With regard to the error concerning *resemblances*, I have in the outset ventured the opinion, that Locke fell into it from not supposing that there can exist in the Mind, an *impression* as well as a *Feeling* from it.———This error was very fit to befal any *Non-extensionist* who acknowledged extended impressions; for, being convinced (as *Locke*, *Berkeley*, and *Hume* were) that, on certain occasions, there undeniably is *something* on the Mind that *resembles Extension*, and never supposing the Extension of the Mind, or an extended *impression* in it, he has nothing left for it but to suppose that the *Feeling itself* resembles Extension. This resemblance, *therefore*, Berkeley imagined to be only mere *deception*, or, that its *archetype* has no *independent* Existence out of the Mind which perceives it;

and I have no hesitation in saying, that *upon the supposition* the Mind is *not extended*, he is justified.——Perfectly consonant to this was the conclusion of *Hume*, from the same *conscious Fact;* for he decided, that provided the Mind is a substance at all (that is, I presume, provided the whole is not deception) *the Mind* is *extended.*

Now, when the supposition is once made that the Percipient is extended, and feels by Motion, the discrimination between a mental *impression*, and the *Feeling* it occasions, becomes obvious; and the difficulty vanishes.

Mr. Locke certainly clouded his own clearer View by several inconsistencies; and any two persons may perhaps take different views of his doctrine, without impeachment of their candour; but I regret that in the laudable enterprise of exposing the errors which have followed some of his positions, the illustrious persons engaged therein have not rather deemed Locke, *upon the whole, virtually* upholding the cause of truth, (which I decidedly think he has done in regard to the point in controversy) than have allowed the advocates of error to strengthen themselves, in believing they have his authority on their side.

Of those who have written on the subject, at large, most authors have something which admits correction; and I think any Man will have made a great step in the Science of Mind when he shall be found to have written upon it with *uniform consistency.*

EXAMINATION

OF

THE DOCTRINE

OF

A CEREBRAL MIND.

The Mind having been treated, in the foregoing inquiry, not only *as Mind*, but, at the same time, considered as a *physical Reality*, the Evidences and arguments therein, are meant for the consideration of all parties.——There certainly are sufficient *precedents* among *Immaterialists*, to justify, to that party, a speculation upon an extended Mind: and, on the other hand, *Materialists* are bound, by their own rule, to admit the *best physical* Evidence that appears.

It is from this exclusive deference to *physical Evidence* that the doctrine of a *Cerebral Mind* (that is of a *Percipient merely automatic*) has spread so widely; whilst, however, I think it cannot be made appear that the *Brain* performs any thing like those physical Processes which are, by its *advocates*, supposed necessary to Sensation.

It is not indeed to be wondered at (when we for a moment consider the necessary contact of Body with Mind, and the *correspondence* there must be between the *Motions* of both) that the operations of the nervous Vehicle should so far resemble the *exterior* Motions of the Mind itself, as to be, to a certain *extent*, *mistaken for them;* but I shall endeavour to shew that such mistake can hardly be made in favour of the *whole Brain;* and, that if any part of the *corporeal System* has pretension, it must be the *Nerves*, in their *respective separate trunks*; whilst I think we shall scarcely ascribe the functions of Mind to these, by themselves.

In the following examination, after viewing the Evidences that appear against *the mental agency* of the *Brain*, I shall offer some conjectures concerning the probable instrumentality of that Organ.

CHAPTER I.

A VIEW OF DOCTOR HARTLEY'S THEORY OF VIBRATIONS.

SECT. I. THE DOCTRINE OF VIBRATIONS INDICATES MATERIALISM.

NOTWITHSTANDING the protest Dr. Hartley has entered, against proving the Mind *material* from any thing he has advanced in his Theory of Vibrations, I do not see how he has left us any choice.— The doctrine of Materialism appears to me to be fully warranted by the doctrine of *Vibrations;* but it, however, appears, that such was not the conclusion drawn by Dr. Hartley himself; and many of his statements are certainly much more favourable to the *spherule* Hypothesis advanced in this inquiry, than to that of a *cerebral Mind.*———He even supposes an "*infinitesimal elementary Body* "to be *intermediate* between the *Soul* and *gross Body;*" and concludes, that though his Hypothesis of *cerebral functions* "is true in "a very useful practical Sense, it is not so in an ultimate and "precise one."———The general supposition he here uses is perfectly suitable to a *spherule* Mind; and the chief difference which follows is, that Dr. Hartley supposes "some *peculiar original Property* in the *elementary* Body;" which may be "the *Source* of "*Changes*," whilst I, also, suppose *such* a *Property*; but, suppose it to exist *not in the elementary Body*, but in the *Mind itself*.

Now Dr. Hartley admits, that "if changes have some other "*source besides* the *Vibrations* in the medullary substance, then Vi- "brations will not be adequate exponents of Sensations, Ideas, and "Notions."——This avowal (notwithstanding the general nature, and *tendency*, of his vibratory Theory,) is altogether favourable to my view; but, unfortunately it appears, that after supposing an *elementary Body*, and acknowledging a *Soul*, he has *not* left the *latter any office to perform*.——He supposes *medullary Vibrations* not merely *occasions* of *Sensations*, *Ideas*, and their *Associations*; but, in fact, the *Agents*, not only of these, but of *all Judgments*, *Passions*, and other mere *intellectual Operations* whatever.

On the contrary the view here held out, while it equally, and indispensibly, supposes a Mind, and a nervous System (together, probably, with *some elementary Body*) assigns to each of these three *Realities relative* and *important offices*.——*Nervous Motions* are absolutely necessary to afford *Consciousness*; but, I suppose, they avail nothing until they have passed *through* the elementary medium, (if there be any such) and have *actually moved* the *Surface* of the *Mind*; which, being thus moved, becomes the *internal* "*Source* of "*Changes*," as it is the Source of *Feelings*, because *Consciousness* on *impulse* is one of its "*peculiar Properties*."

Now, I apprehend that we may deny a *cerebral Mind*, if we can shew, that the *Brain* is *physically incapable* of the *functions* of *Mind*; besides having shewn, by the foregoing inquiry, that the *functions* of *Mind* can be performed in *another way*.

SECT. II. SENSATIONS BY THE BRAIN, PHYSICALLY INCONCEIVABLE.

Agreeably to Dr. Hartley, Vibrations of the infinitesimal particles of the *whole medullary* Substance of the *Brain*, appear to be the operations of *all conscious* Affections, *generally speaking*; and doubtless they are taken as such by Dr. Priestley, after Dr. Hartley.

Now, considered in a *general physical* view, I imagine there are only *two* possible conditions of the *arrangement* of these infinitesimal particles.——They are either compressed together *unorganized*, and free to vibrate in every direction; or, they are compressed together *organized*, therefore fettered, or at least *biassed*, in their Modes of Action.——The great liberty of direction required in *Dr. Hartley's Theory* perhaps demands nearly an *unorganized* state, though I suppose there is little doubt that he admitted the whole Medulla is organized.

Let us first suppose the *greatest* possible *liberty*, without any regard to the *real* Structure of the *Medulla*, because Dr. Hartley, says (Prop. V.) "As soon as those Vibrations enter the Brain, they "begin to be propagated, *freely, every way*, over the *whole Medullary* "*substance*."——He also supposes (I think justly) that, as the Vibration of any Nerve will enter the Brain in the line of direction of that

Nerve, the said Vibration *may* preserve the same line of direction to some distance within the Brain. "Hence the same internal parts of "the Brain may be made to vibrate in different directions, according "to the different directions of the Nerves by which the Vibrations "enter."

To this supposition I may add, agreeably to Dr. Hartley himself, (though it is of *no* great consequence,) that the *Nerves* being continuous, and of the same uniform Substance with the *Brain*, *both* must be *supposed* to admit the *same sorts* of *diffusion*, or mixture, of *Vibrations*, during the time such Vibrations are *travelling*, in *synchronous* groups, along the trunks of Nerves, *before they reach* the Brain at large.

All this being supposed, agreeably to that Hypothesis, let us now suppose ourselves *viewing* a Scene consisting of *an hundred* Objects, (as Houses, Trees, Men, and Cattle;) *each* of which must consist of a *vast number* of *visible features*, *all* which we can certainly *perceive* at once, though we cannot *examine* them all at once.——In such case, I must suppose that the complex Picture, which *exists synchronously* upon the bottom of the Eye, travels, *thus marshalled*, along the *optic Trunk* until it *reach* the *seat* of *Sensation*.

Now, I ask, how we can *physically* conceive these *hundred complex* columns of *Vibrations* (*each* column being *many* smaller columns,) can travel, *synchronously*, the whole *length* of the optic Trunk, without *mixing*, and *confounding*, *before* they *reach* the *seat* of *Sensation*: that is to say, *if they possess liberty* of variation equal to that supposed by Dr. Hartley, of the Brain at large?

But, as Dr. Hartley, in *another place*, supposes the Nerves to be capillary *filaments;* we will *now* suppose Vibrations *not* at liberty, but that they are *governed* so as to reach the *Brain* properly marshalled; which I think the *most probable* supposition.—I then ask, how these *hundred columns* of Vibration, (each *column* being *many hundred columns*) can, after they reach the Brain, *each* take up a *wide* extent of ground, "over the whole medullary Substance," (if that be necessary,) without *overwhelming* and *confounding* each other.

But again (supposing both these great objections of no account, or out of the way) considering the *known arrangement* of the *Nerves*, and *known seat* of *Sensation*, it must happen, that *all the group* or picture, of *innumerable complex columns* of *Vibrations*, must *reach* the very *region* of *Sensation immediately upon quitting the Optic Trunk;* and, therefore, if they require the *farther elaboration* of a *general diffusion*, over the Substance of the *Brain*, they must be thus diffused *after* they have reached, *and passed*, the *region* of *Sensation*; whilst the "*whole substance* of the Brain," (thus supposed necessary to effect Sensations,) is known to be *less sensitive* than the region they have *previously passed.*

Dr. Hartley, himself, fairly admits, that the very *interior only* of the *Brain* is the *seat* of *Sensation;* and modern investigations confirm that it is very *central* indeed.

The following passage from the Physiology of Mons. Richerand will assist the present purpose of recollecting this fact. "Sœmmering has traced the roots of Nerves, and particularly those of Smell, Sight, Hearing, and Taste, as far as the eminences in the parietes of the Ventricles of the Brain; and believes that their ultimate extremities are moistened by the serosity on the contiguous *internal Surfaces.* It may be conjectured, with a degree of probability, that the cerebral extremities of Nerves *unite* in one determined point in the cerebral Organ, and *to this point,* which seems to be the *annular protuberance of the Medulla oblongata,* all Sensations are carried, while all determinations are given from it, whence arises voluntary Motion."

This presumptive Evidence is not only important here, but is of *vast importance* to the Hypothesis of a *Spherule, enveloped* by a *nervous* System; because here we find the strong presumption of physiological research, pointing to that very *locality* of the *Mind* which I herein labour to establish.

The beautiful delineations of the *Brain,* now extant, serve to illustrate the fact; and in them we perceive, as in a real subject, that the nervous intelligences of *all the Senses* appear to *rally round* the *Third Ventricle;* from which confined *locality* of the *Percipient* I derive an inference, to be mentioned farther on.

But, to conclude the foregoing *physical* arguments, the three objections to the vibratory Theory, already considered, are so evident, and the *last* of them so very important, that I think it only requires probability of any other scheme, to make us reject the *Hypothesis* of a *Cerebral Mind.*

SECT. III. THE BRAIN IS NOT EMPLOYED IN COMPLEX SENSATIONS, OR IDEAS.

As the most *complicated* scenery must travel along the *Optic trunk*, duly arranged (and *Synchronously*,) it follows, that *all* its *features* are *associated* in the *trunk*, and thus enter the Mind as a *complete* group or *picture*. This being the case, there can be *no need* of the *whole Medulla* of the *Brain* to perform the offices, of *elaborating* and *associating* these Sensations, since they are *already* elaborated and associated in the *nervous* trunk, and require only to be inflicted upon the Percipient.

Since then the *whole* Brain appears *not necessary* to *Sensation*, and not necessary to the *Association* of *Sensations* of the most complex Sense, (consequently not necessary to associate the *relicts* of these, which are *visual mere Ideas*) I do not see *how*, or *why*, it should be necessary to *associate Ideas* of *all* the Senses,—taken as operating together.

Independent of this argument, drawn from the known *Structure* and *operations* of the *Nerves*, I have already argued that the *Principle of Association* is conscious *Interest*, which is a thing *purely mental*.———Nervous Vibration is a *physical* Fact, and many Vibrations may co-exist in the fibres of Nerves; but *such only* of them as *Interest* the *Mind* will be associated in *Memory*.

SECT. IV THE NERVES FORM SYNCHRONOUS DISTINCT IMPULSES.

There are some other considerations which I may perhaps as well notice in this place.

Dr. Hartley says, (Prop. xii. case 1,) " For if any two, or more " Vibrations, belong to the same region, since they *cannot exist together* in their distinct forms, *A* will raise something intermediate " between them." This, I think, would be very probable of Vibrations " which have a liberty of propagating, *every way*, over the whole " Brain," and, that the *intermediate* thing so raised would be *confusion.*——But the Process of Vision is a *Fact* directly, and most remarkably, *in contradiction of the above position.*

It appears a certain *Fact*, that *many thousand* columns, (or lines, of *distinct Vibrations* do *travel*, (side by side,) the whole length of a Man's *Optic Trunk*, *without* raising any thing between, though they, notoriously, belong to the *same* region, and this region no greater than the *diameter* of the *Optic Nerve.*——Here each infinitesimal *filament* transmits *its own peculiar* Vibration, (which is *not jostled* by its *next* neighbour,) and *all arrive at the Percipient together.* The reason of this order, we can hardly doubt, is the internal *Structure* of the *Nerve* into these filaments; but, we must suppose that this sort of filaments, or some other filaments, exist in the *Brain also;* consequently, that, even in the Brain, these Vibrations, (*if they do* travel beyond the "*annular protuberance*" to give Sensation,) must travel in *certain Orders*, and *cannot* have leave to propagate "*every way.*"——And, it is *only* by their travelling in governed *Orders* that I can suppose *confusion* to be *prevented*, (as it is prevented,) in the Nerves, *respectively*.

In Mons. Lecat's Essay on the Senses, is a curious estimate of the number of luminous rays admissible, *Synchronously*, in the pupil of the Eye. In the *least wonderful* part of this estimate he says, "Forasmuch as each Toise of a Plain, containing one hundred millions of "luminous Motions, corresponds only with *a point* of my *Pupil*, an "hundred millions of *points* of Light must still be found in my Pupil, "a circle of a line and a half diameter."

Here, then, are an *hundred millions* of *columns* of *Vibrations*, each column consisting of an hundred *millions* of *lines* of *Vibrations*, (and, perhaps, these again may be subdivided,) all of which *lines travel* along the *Optic Trunk*; each, I suppose, propagated along a *different filament*, whilst the *nearest two* of these collateral travellers must move along as *independent* of each other, as if they were an hundred miles apart.

Strange then, after evincing this wonderful distinctness, or *independence*, strange indeed if, (after a lapse of years,) one bundle of these can call up *all*, or great *part*, of the *others*; and, still more strange if they may be all *called up* by the Vibration of *another* and *distant Nerve*; or, *equally* so by an *intellectual* associated Affection whose Vibrations we *cannot* any how conceive.

It will *hardly be*, that the above stated *independence* of Vibrations *ceases* to exist the instant they have *passed* from the *Nerves* into the *cerebral regions:* (which, *if so,* could produce *only confusion*) but, if this should be thus improbably supposed, it *avails nothing*, since it appears, from the best evidence we have, that *Sensations must* take place *previously* to any *general cerebral diffusion.*

The daily known *fact*, of *numerous synchronous Perceptions* by mean of *one trunk* of *Nerves*, must always strongly question the *agency* of *Brain*; and of this Dr. Hartley himself appears sensible, because, although he frequently talks of *synchronous* Sensations, he says, that such Perceptions by Nerves, *are* "*rather*" *successive* than synchronous; and thus seems to question the *possibility* of the *Nerves* to *maintain synchronous Sensations.*

This supposition, (which Dr. Hartley felt it necessary to risk, as it seems requisite to uphold his Hypothesis,) may have led to that opinion which I have already combated: but, besides what I have advanced as unanswerable arguments to prove the Existence of very numerous synchronous Perceptions, the extract from Mons. Lecat, on Vision, amply shews the fallacy of limiting our Perception (even of *one Sense,*) to one Idea at a time

Now, since the *Optic* Trunk can (beyond dispute) marshal, and transmit, a numberless group of *synchronous Sensations*, it must be a very easy thing for the *Auditory* and *Gustatory* Trunks, to manage the few that fall within their provinces; and so of all Nerves whose offices are *less* complicated.

It hardly need be added, that sensual *Ideas* being copies of *Sensations*, the arguments for the *latter* serve also for the *former.*

SECT. V ASSOCIATION IS BY INTEREST, NOT BY VIBRATION.

Not only is Pleasure, or Pain, *no real* Thing in the Mind, but it is *no property* in the Mind; it is only a conscious *Accident* falling upon a *mental capacity*, somewhat as Motion is an Accident in Body. But Pleasure, or Pain, is a *peculiar* Accident, which cannot have existence except in a *sensitive Being*; whilst the Accident of *Motion* is common to both animate and inanimate Things.——— Now, as I think it appears, beyond any doubt, that Pleasure and Pain are *(strictly speaking)* the only means of *Retention* and *Association*, it becomes evident that *Association* is occasioned by an Accident which *cannot exist in mere Body*; therefore, *medullary* Vibrations cannot be the cause of Association.

I cannot conceive any argument more satisfactory than the last consideration, to prove, that mental *Association cannot be* an *Accident* of Body, unless Pleasure and Pain (which produce it,) are also Accidents of Body.———Now, the proof that I here rest upon (over and above the general opinion that the Substance of the *Brain does not Feel,*) is, that its *weakest* Vibrations can produce the *most violent Pains*; and, its strong Vibrations may produce no Pain serving to *Memory*. Also, that the *weakest nervous Action* (or a *mere* Judgment from *Memory,*) can produce the *longest Retention*, and the strongest *intellectual* re-action many years after an *original conclusion* whereby a Man has become much affected in regard to his happiness.

No *material Body* can be supposed to have *apposited* or *double* Affections. It belongs to Minds, exclusively, to *feel* at the same *time* that they *move;* and, it is the *feeling* capacity of the *Mind, (not its Motion,)* that admits *Association* of Ideas, which is natural, since it is the feeling capacity of the Mind, *(not its Motion,)* that admits *Sensations themselves.*

Those arguments are independent of objections to the *Brain's* particular *Structure,* and *operation,* which last will be considered farther on.

SECT. VI. BRAIN CANNOT OPERATE AS MIND,

Leaving the probability of any other Hypothesis out of consideration, it appears unnecessary to wish for any stronger arguments against the Hypothesis of *cerebral Agency,* than the following, here recapitulated.

1. The most *complex* Pictures are formed in the *Nerves themselves;* consequently, they *need no Agency* of the *Brain* to marshal them.

2. Sensation takes place at the *central* region where all the *Nerves meet,* and before they can reach the Brain at large; therefore the Vibrations *do not diffuse* over the *Brain* to effect Sensation.

3. The *weakest* nervous Vibrations can produce the *strongest* convulsions of Mind; and may be *longer retained* in Memory than violent *mere nervous* impulses.

4. To which I may, perhaps, add the well-known Fact, that though *nervous* pressure produces *Sensation,* yet, *cerebral pressure,* on the contrary, produces *Stupor,* as is proved not only in a general com-

pression, but in particular or partial ones, as in the case of the Parisian beggar.

SECT. VII. NERVES SUPPORT THE SPHERULE HYPOTHESIS.

Having thus endeavoured to shew, that the *known operations* of the *Nerves* appear *inconsistent* with the doctrine of *Vibrations*, I may here notice, again, the consideration mentioned in *treating on Vision*, in which they seem apparently favourable to the Hypothesis of a *flexible spherule Mind.*

Suppose a man viewing an hundred visible *large* objects, consequently, to have an hundred large complex *columns* of visual Vibrations travelling *Synchronously* along the *whole* of his Optic Trunk. —Now, if the Optic *Trunk* be *divided* by a knife, *transversely*, (and if the motions were not interrupted,) I think we may conclude, that the *end* of the *Nerve* would present a *Surface* of *Undulations*, however too small for sensible detection.—This being admitted, then, if the cut end, thus forming an *Undulating Surface*, were applied in *contact* with a *flexible Spherule* (of *adapted size* and *Susceptibility*) we must conceive that it would impress *such Spherule* with *Motions corresponding* to the *Undulations* of the *end* of the *nervous Trunk*. —Thus, (or at least on this Principle,) do I conceive the *Motions* of the *Nerves* to *impress* the *spherule Mind*, on all sides; each Sense limited *to* its *own portion* of *Surface*, with exception, perhaps, of the universal Sense of *Touch*, as embracing the whole system.

CHAPTER II.

OF THE OPPOSITION OF THE SPHERULE AND THE VIBRATORY HYPOTHESIS.

NERVOUS Vibrations, as explained by Dr. Hartley, never suppose the Nerves to vibrate as whole strings; but only, that their *infinitesimal particles* oscillate.—Some such *Motions* as these I also suppose do exist; but, instead of Vibrations of the parts of *Nerves themselves*, I suppose the *Motions* to be those of parts of a *Fluid contained in them*. ——Now in such case there is some analogy between *Vibrations* and *Undulations*; because collateral finite lines of *unequal* Vibrations, must terminate in a *Surface of Undulations*. Thus, as I have already argued, if we cut an *Optic Nerve* across, at any point of its length, while it is conveying a complex Sensation, which must agitate its infiniteaimal parts, (and if the divided end could be examined, *by Sense*,) it must present a *Surface* of minute *Undulations*.——This, however, does not in the least assimilate the *vibratory* Hypothesis to that of a *Spherule*; and no two modes of operation can demand more different *Structures* of Mind, than that supposed by Dr. Hartley, and that herein advanced.———The following Propositions shew this opposition.

1—The Mind *operates by* a *Surface.*

2—The Brain *operates* by a *Center.*

3—If it could be proved that the *Brain* operates by its *whole Substance,* this would not in the least enable it to operate as *Mind.*

4—Unless it can be proved that the *Brain* operates by its *Surface* (which cannot for a moment be supposed) it cannot operate as Mind.

5—If (for the sake of argument) it be supposed that the Brain operates by its Surface, then, to enable it to operate as Mind, it would be farther necessary to suppose it *enveloped* in a *nervous System,* which must operate upon all sides of *its exterior Surface;* which is notoriously contrary to fact.

I have thus thrown these few prominent points of opposition into a distinct Chapter, to place it in the stronger light; but deem it unnecessary to follow the contrast through all its features; and shall only farther observe, that in Dr. Hartley's Treatise the *external Senses* are not arranged in the *Order* of their *capacities,* nor is any attempt made to account for their *differences* in regard to *distinctness* of *coexistence, number,* and *rapidity* of *Succession*; which points appear so properly, and strikingly, an Object in such a view of the Subject as Dr. Hartley engaged in; and the accounting for which, appears to me, one of the strongest Evidences that is likely to be produced in favour of a *distinct Percipient,* operating by *physical Process.*

CHAPTER III.

CONJECTURES REGARDING THE INSTRUMENTALITY OF THE BRAIN.

SECT. I. PRESSURE ON THE BRAIN DOES NOT GIVE, BUT TAKES AWAY, CONSCIOUSNESS.

THE medullary Substance of the *Brain* is so closely connected with life, and thinking so certainly depends upon the due action of that *Organ*, that, from general experience, many are led to suppose, it performs the functions of Mind, purely in virtue of its *Organization.*—But besides the many arguments to prove this a very *inadequate* view of the subject, there are particular facts of the Brain itself which go to contradict general experience, and give rise to doubt of the conclusion we might otherwise incline to draw.

It has been said that nearly the whole *medulla* of the Brain has been injured, without affecting the Mind; and, in other cases, I believe, it appears that part of the Medulla has been discharged. If such Facts have happened, they should induce us to look farther.

To these considerations I shall venture to add another, which I think of some weight. This is, the different, and even *opposite con-*

scious effects produced by physical action upon the *Brain*, from those of physical action upon the *Nerves*.

If we press the end of a finger against any part of the Body, it will produce Sensation; and the more we increase the pressure, the more we shall increase the Sensation.——But, if we press the Surface of the *Brain*, in the very same way by a finger, we *shall*, at first, produce a *tendency* to *stupor*; and, as we *increase* the pressure, we shall *increase* the *stupor*, to total *insensibility*.———This, if I mistake not, was the case of *the Parisian beggar*: and from general experience it appears, that general pressure of the Surface of the Brain produces similar effects.

In fact, I here suppose no effectual difference between the pressure produced by a large Surface, and that produced by a finger; for I suppose this last also occasions a *general* tendency to *contiguity* of the *medullary filaments*; to which *approximation* of *parts* I will attribute the *decrease* of *Sensibility*, because I believe a probe introduced (without producing such *general* compression) produces *acute Sensation*, the Pain of which *increases* as we advance toward the *central* region.

If this can be supposed, it becomes a question whether *lessened* Sensibility is an *immediate* effect of the compression of filaments; or, whether such *approximation* of parts produces insensibility by *preventing* the *passage* of some subtle *Matter* along these filaments, toward the *Ventricles* of the Brain.

Here I leave these queries, reluctant to pursue them to a more visionary length; and shall turn myself to consider the *internal Structure* of the *Brain*, in the cavities of which, some fine Matter may possibly be deposited, if these cavities are ever distended in any degree.

SECT. II. THE NERVES UNITE AT A CENTRAL CAVITY IN THE BRAIN

It appears, from inspection of the *Brain*, that the *Nerves unite*, in a very remarkable arrangement, *round the Third Ventricle*; which *if it were distended* would form a Cavity.—The *Optic Nerves* are immersed, (or, originate,) in capacious beds, which form *two sides* of this *Ventricle*, while *all* the assemblage of *other Nerves meet* in the *annular protuberance*; and this protuberance, itself, *terminates* at the *inferior Surface* of the said *Third Ventricle*.

When I fell upon the Hypothesis of a *Spherule* and the consequent Hypothesis of *Undulations*, I certainly had no view to the *Brain*, or its *particular* arrangement; but I cannot well imagine any Structure more apparently favourable for the purpose, than the existing Structure of the *Brain* itself: and being thus far advanced in the regions of conjecture, I will now suppose the *spherule Mind* established in the *Third Ventricle*, and there surrounded by *elementary Matter*, which, I will also suppose, has passed through the innumerable medullary vessels of the *Brain*.——If this be supposed, then nothing *appears* wanting to enable the *Mind* to *operate*, except *Motion*, which becomes the *occasion*.

The requisite *Motion* will be *supplied* by the *Nerves*, to the *exterior* of the volume of *elementary Matter*; and the Motion of this *elementary* Matter will be more or less *vigorous*, as this *said Matter* is more or less *dense*.——Farther, the elementary Matter will be more or less *dense*, as the Vessels of the whole Brain have secreted it *into* the *Ventricle* in *greater* or *less quantity*; or, as its channels of *exhaustion* are *more* or *less obstructed*.

SECT. III. THE DISPOSITION OF THE NERVES FAVOUR THE HYPOTHESIS.

I have in another place supposed, that *all* the *Senses* do not play intermixed upon the same portion of *mental Surface*, but that *each* Sense probably operates upon a *distinct portion of Surface*, excepting only the Sense of *Touch* or gross Feel.

The chief reason for supposing that *each Sense* occupies a *separate* portion is, that, otherwise, the *Undulations* of two distinct Senses, if they were *nearly* of a *size*, might tend to confuse each other; whilst, from the analogy of *Rain* upon *ruffled Water*, it is very obvious that *minute* Undulations may play, undisturbed, on the bosoms of *large* ones, without being confounded with them.

Thus it appears, physically, how Undulations of *Vision* may possibly play upon the bosoms of Undulations of *Touch*; but, if Undulations of *Vision* were to exist mixed with Undulations of *Hear* (though the difference in size may still be considerable) we may suppose they would *confound* each other.

Now, to countenance this supposition, it is very remarkable, that the *Optic Nerves* stand so as, probably, to *discharge* their impulses upon that region of the *Third Ventricle*, *opposite* to that which receives impulses from the *Auditory Nerves*; and, if we suppose a *spherule Mind* existing in the *Third Ventricle*, (or, even in the *Pineal Gland*,) it would appear, from this disposition, that the impulses of *Hearing* must *strike* the *Spherule* on the *side opposite* to that which *receives* the impulses of *Vision*.

Whether such disposition of the Nerves is really to avoid the mixture, and confusion, which I have thus supposed, may be very questionable: but, at any rate, no arrangement can appear more conformable to what the Hypothesis, in such case, seems to demand.

SECT. IV. THE SEAT OF PERCIPIENCE IS WHERE THE NERVES UNITE.

It is, I believe, not supposed that the *Ventricles* of the Brain are naturally distended; but, unless this can be proved, it may be conjectured *not probable* that they were formed into cavities without intending them for occasional distension.

I think it makes in favour of the *spherule* Hypothesis, that Mons. Richerand, along with Sœmmering, "believes that the ultimate *extremities* of the *Nerves*, of *Smell*, *Sight*, *Hearing*, and *Taste*, are moistened by the serosity of the *parietes* of the *Ventricles*."—And still farther favourable, "that the cerebral extremities of *Nerves all unite* "*in one determined point*, in the cerebral organ; and to this *central* "*point*, which seems to be the *annular protuberance*; *all Sensations* are "carried, while *all determinations* are given from it."

I have repeated this passage because it appears so very corroborating in this place; and because, in judging the *spherule* Hypothesis, it is of great importance to keep this admitted *Fact* in view.

SECT. V. HYPOTHESIS OF AN ELEMENTARY BODY.

Any thing offered regarding the *precise* Office of the Brain must be so merely *conjectural*, that the utmost I can intend to argue is, that *what is known*, is perfectly *consistent* with the *spherule* Hypothesis.

That the Brain has a *vibratory* office, (or moves by a Fluid in common with the Nerves) I suppose probable; but, if it has not a *secretory* Office, and only vibrates by its proper Substance, then I should expect that the *more* we *press* it, in *any* way, the *stronger* it *must vibrate*; and, the stronger must be the *Feeling* from this Vibration: which, however, is contrary to Facts.——But, if it *secretes* an *elementary Matter*, necessary to stimulate the Mind, then, any partial pressure of its *Surface*, which causes a *general compression* of its *Substance*, must *tend* to bring the *sides* of the fine *Vessels* in contact, and so obstruct the *secretion* of this *elementary Matter*.——The more this secretion is *lessened*, the more *attenuate* will be the *Matter* which is *deposited* in the Third *Ventricle*, to envelop the Mind and move its *Surface*; consequently, the *weaker* will be the *effect* of *all nervous impulses* upon it, because, if there be *little* or *no* elementary Matter round the Mind, that is, if the Matter be very attenuate, then, there can be little or no medium to convey *strong* Sensation.——

In this way it may be that *all nervous* impulses inflict Sensations *through* the *elementary Matter*; whilst all pressures upon the *Brain lessen*, and *at length prevent*, Sensation, by *preventing* the *secretion* of elementary Matter into the *Ventricle*, owing to which prevention this Matter becomes too *attenuate* to convey to the Mind *Vibrations* of *sufficient strength*.

Upon the foregoing suppositions it is natural enough to conjecture, that the *lateral Ventricles* of the Brain serve as *magazines* of *supply*, of elementary Matter, to the *Third Ventricle*; and that any external shock on the *Brain*, which shall occasion the *communication* between the Ventricles to *close*, must have an *instant effect* upon *Sensation* in *general*.

I might easily pursue this visionary reasoning through the *various* phenomena of *Sensibility*, and physical phenomena of *Insensibility*; but enough has been said for my purpose.—It is at least conceivable, that every change, from *mirth* down to *melancholy*, and from calm reason to phrenzy, may possibly be accounted for from fluctuations of such a *secretion*, co-operating with *variety* of its *Vibrations*.

SECT. VI. AN ELEMENTARY BODY WHY REQUISITE.

Finite Extension must have Figure; and *Figure must* have *size.*—It may then be asked, on the Hypothesis of a *spherule Mind*, what *size* can it possess?

The size, and Motions, of microscopic Animals, form, perhaps, the best *sensible* help toward *conjecture of possibility*; for therein we at least perceive, that a *spherule Animal* far too small for naked Vision, contains sufficient *Surface*, *flexibility*, and *Motion*, to perform, on a very *gross scale*, all that *appears requisite*.—And we may, in some degree, farther guess how very small a *Surface* might possibly serve; on reflecting that *millions* of rays of Light enter the *Eye* through its *pupil*. This alone shews the *possibility* that the *Mind may be a particle almost inconceivably minute*.

It is from this *supposed minuteness* of the *Percipient* that I have also supposed the *elementary Body* to be necessary, inasmuch as that the Mind, being so small, *could not* immediately, or *directly*, receive the *extremities* of the *Nerves*. It therefore appears *necessary* that their impulses should be *converged* (and perhaps *refracted*,) so as to *strike* upon the Percipient however small it may be; whilst, also, this apparent necessity for the elementary Matter *gives important office* to the *Brain*, and is ample reason why all *thinking depends* upon *its Action*.

If this minuteness of the Mind be supposed, a *complex Vision* formed in the Optic Trunk will, *instead* of *diffusing* over the Brain, *be contracted* to a far *smaller scale* before it can be stampt upon the Mind. And all nervous impulses must *converge* to give Sensations—whilst all determinations must *diverge* to produce bodily Action.

I am aware it has been objected by Philosophers, to the supposition of an extended Mind, that it must be either a *physical Point*, and therefore too small to be possibly capable of receiving the delineations of *material* impressions; or, it must consist of many such Points, which would destroy the Unity of the Percipient and of

Perception.——But the force of this objection, I confess, I am unable to see; and especially think it cannot be urged by any who, with Newton and Locke, hold the atomical Philosophy.——Newton and his followers suppose Matter to consist of Atoms having *Extension*; and these, however small, are conceivably *infinitely divisible:* but, there is no reason why they *must* be *actually infinitely discerptible*, or, that they consist of naturally distinct *parts*.——On the contrary, if it is possible to create a *single* particle of Matter, with *any* Extension, however *small*, I cannot conceive any thing against the possibility of creating a *single* particle with *any* Extension, however *large*. And, notwithstanding the confessed actual divisibility of Matter, I think it must follow, that if there be in Existence such a Thing as one particle or *Unit*; then, there is nothing against the possibility that *single* particles of Substance may *vary* in *size*.—The *Unity* of a particle can have no *necessary dependence* upon its *size*; because, let a *single* Atom of it be as small as we will, *if it has size at all*, that *size* might *possibly* have been *less*.

SECT. VII. THE PINEAL GLAND.

The Hypothesis of a *spherule Mind*, established in the *Third Ventricle* of the *Brain*, recals to notice that celebrated spot which a great Philosopher once assigned as the abode of the Soul. It may therefore be consistent in the present Hypothesis, (though arising from a very different view,) to inquire how far the *Pineal Gland* has any claim to be supposed the possible *seat* of *Intellect*, on the supposition that the *Mind is a Spherule.*

So far as regards the locality of this Gland, and the disposition of the Nerves in regard to it, there perhaps appears nothing against the *possibility* of its fitness; but this, if supposed, gives rise to considerable difficulties, the discussion of which would lead to speculations that I do not wish here to meddle with: and shall therefore leave the Hypothesis, in this respect, as it stands.

The whole that has been advanced, throughout, demands no more than, that the *Mind* shall *operate* by *Undulations* of a *flexible Surface*, enveloping some distensive Power, and itself enveloped by the nervous System. I leave it for others to assign its *particular size*, and *locality*.

CHAPTER IV.

FINAL RETROSPECT, AND CONCLUSION.

IN the foregoing Subject there are *two distinct* main considerations These are *conscious Phenomena*, and a *physical Hypothesis* applied to them.

With regard to the first mentioned of these, several of the positions advanced will, I believe, be found *original;* while, at the same time, I think their Existence in truth appears beyond controversy.—The most important of these are, *the Law of Interest*,—the *occasioning* of our *Passions* by our *Judgments*,—and the *mathematical relation* which subsists between the *conscious operations* of our external Senses, in regard to their *strength*, *number*, *distinctness*, and *rapidity of Succession*, in all which is evinced the Existence of *physical Process*.

When these concurring Evidences of *conscious phenomena themselves* have been viewed, if we turn to the *general Hypothesis of a Spherule*, I think it will not be denied that our mental Affections are *governed* in that very *Order* of *accession*, and *expulsion*, which *corresponds* to the *Order* in which *Flexures* must be *governed* in a gross *tangible Spherule.*———Whether this strict similarity of *Order*, between *conscious* and *physical Changes*, will be, by any one, considered as a *mere accidental* correspondence, I leave to be determined; but if the supposition be made that the analogy is *merely accidental, so far*, it can scarcely be maintained with much probability when we come to consider the Hypothesis of *Undulations*, which grows out of the Hypothesis of a *Spherule.*———I think it will be admitted, that a *Surface* covered with very *minute distinct* Undulations, accounts for distinct Vision of many *small Objects* (such, as a basket of garden *Seeds*, or a *spotted* Kerchief) with probability: and far more probably than a *diffusion*, or *mixture*, of *Vibrations* over the whole medulla of the *Brain.*—And when we observe how *circular Undulations* raised by rain, *cross*, and *blend*, in proportion as they result from *heavier impulses*, we see, very naturally, how the grosser impulses of *Taste*, and *Sound*, must prevent that *numerous discrimination* of Objects which *Sight* is enabled to contemplate merely because its *minute Undulations die* in the birth, and *do not cross* their next neighbours.———But when to these Facts we add the known *relative rapidities* of Sensual Succession, and perceive it so natural that the *minute Undulations* of *Sight* take much less time to succeed each other than is done by those of *Sound*, by their being supposed to have so much *less volume* and consequently *less time* to *rise* and *fall*, I think it would be straining conception very much to suppose that *all these coincident* circumstances are *merely accidental.*

These few recapitulated Points (obviously) do not embrace any thing like the whole mass of Evidences; but to these I may here add that of the *Interest* of *Succession*, a *conscious Phenomenon* which

I have shewn to exist, and which is so naturally accounted for by *Processes* of *Undulation varying as they succeed.*

In pronouncing upon the *Hypothesis*, different Men will be influenced by their different *previous* ways of thinking.——With *Materialists* the question between a *Cerebral* and a *Spherule* Hypothesis, is merely a question of *physical probability*; and I think it rests upon the following grounds.——The *Brain* exists, but it cannot *physically* account for *distinct* numerous intelligences by a *general mixture*, or *diffusion*, of *any Motions* which can be imagined; and, farther, it does not appear to perform any such office by its Substance at large; so far from it, that the *Nerves themselves* form the most *complex* notices in their *separate Trunk*, (of which Vision is an instance) and *all* sensual intelligences take place at that *small central region* where the impulses conveyed by the Senses *meet before any general diffusion can take place.*

On the contrary, a *spherule* Mind, reciprocating with the Body by mean of an *Undulating Surface*, *accounts* for all conscious *Operations*, as well as for the *co-operation* of Mind with the *Body*; but we have, and *can* have, *no other Evidence* of the Existence of a *spherule Mind*: an *Hypothesis supported by Facts* is all that the *Nature of the case admits.*——The *Materialist*, then, has here his choice between *two physical Hypotheses*; but, besides their physical claims, there is between them this *infinitely great distinction*, that if *Brain can* be supposed *Mind*, then *Mind* is nothing but a *Mode*, and is *no real Being*; but a *Spherule*, *distinct* from the *Brain*, supposes Mind to inhere in a *Substance*, and, consequently, that it has a *permanent Existence.*

If in chusing between the two Hypotheses, that of a *spherule distinct Mind* be by the Materialist found to carry the most *physical* probability, he cannot *refuse* to adopt it; while I think there can be no question how much it is the interest of Immaterialists, with that of Society at large, to cherish its *general Principle* (I plead not for its particular faults) as the only *sort* of barrier that can ever be *rationally* defended, against the devastating progress of *a Philosophy which engenders misery from despair.*

In conclusion, I now appeal upon the ground on which I commenced as a basis which invites rigid investigation; and confess myself confident that its evidences are as clear, and conclusive, as the certain consequences are important.

The point which I here mean, for the most serious reconsideration of all who are engaged on the subject is, that the *basis* of the Philosophy of *Locke*, *Berkeley*, and *Hume*, has been abandoned (or thought to be exploded) by the more modern Philosophy of *Reid*, in that the latter, while he has rescued the subject from the error of *Resemblances*, has given into another error of equal magnitude and importance, in *denying* that we receive *primary* Feelings *from* extended impressions.

The mighty consequence which hangs upon the decision of this point is, that if Locke and his party were right, the Extension of the Percipient may be fairly deduced as a *necessary truth*; and then, we may cheerfully pursue the subject upon *physical ground*, as I think *Newton* would have done had he pursued it at all.——But if, on the contrary, the Philosophy of Reid be adopted, we must for ever close our eyes in despair, and leave Materialists to extend their doctrine with at least some appearance of rationality, though, from not carrying their search beyond the Brain, they, in reality, cherish a dismal error.

Now I have already shewn, in the Discussion, that the Evidences for the *primary* ground assumed by Locke and his immediate successors are *various*, *clear*, and *conclusive*; but here again recommend to all concerned the following remarks, which I beg to offer in the way of recapitulation.

First I conclude (and suppose it will be granted) *that whatever we can learn, without at the same time learning any Notion of any external Existence, must necessarily be either a modification, or an attribute, of our Percipient.*

If this is warrantably assumed, and if then it be shewn that we can, *in any case*, receive the Notion of *Extension*, *without* receiving *any* Notion of any *external Existence*, it is thereby proved that Extension is an attribute of our Percipient.—But I have *already shewn*, in the Discussion, that we might, in given cases, receive this proof of our own Extension.

It is indeed to be observed, that the case which I have supposed for the purpose of illustrating the Fact, is a case which refers to our *conception*, and not to our experience; but upon this I shall first remark, that it is precisely of the same nature with the ingenious case imagined by *Professor Stewart* for a similar purpose. And not only does his example (though then unknown to me) save me, herein, from any objection of Dr. Reid's school, but I confidently think, that both the case put by Professor Stewart and that supposed by me, are so obvious to every man's conception the instant they are proposed, that no candid inquirer can doubt the natural result of either. ———That proposed by the last named Philosopher states, that a Being with no Sense, but those of *Hearing* and *Smell*, "could know "as much as we know of Mind at present;" without at the same time knowing any external Existence. The circumstantial proofs which he offers of this, refer to our *conception only*, and cannot appeal to our *experience;* but, certainly, no man's conception can refuse them.—Now on the very same ground I rest assured, that conviction must flash upon every Philosopher, that if a Man were always kept with his Eyes *fixed* unchangeably upon the *azure Sky*, strewed with *stationary Figures* of various *shapes* and *sizes*, this Man could *so* acquire Ideas of *Length* and *Breadth*—*Circles* and *Squares* —*Greater* and *Lesser*, &c. *without gaining any Notion of any external Existence.*———The acute Berkeley, in the very article of shewing *how little* of such Knowledge could be got by a Being possessed of *Sight only*, was obliged to admit that Sight alone could apprehend *modes* and *relations* of *Extension;* and he contended only, that its Knowledge must be very limited, and trifling, which last make nothing against the *primary nature* of the Fact.—Here, too, we must recollect, that though it appears surely *possible*, yet *it is not at all necessary*, in such case, to learn either the *relations*, or the *complex* modes, of Extension; for if a Man can so much as receive but the simple Idea of *Length only*, without receiving any Idea of *Externality*, it proves that *Length is an attribute of his Percipient.*

The Extension of the Percipient, which had no terrors for *Newton*, need give as little alarm to the Immaterialist of the present day, since the very same case which affords Evidence of its *Extension*, also furnishes the sister inference that *Duration must be another of its attributes;* than which no related conclusion can be more welcome to Man.———I deem it undeniable, that if a Man, in the supposed case, were to lie with his Eyes fixed upon a group of various Figures, he might not only gain Ideas of Extension, and of its relations; but by varying his *attention* (without moving his Eyes) to the different Figures, or by varying attention to his different Thoughts, he would also gain the Notions of *antecedent* and *subsequent*, which must awaken that of *Duration* and likewise the Notion of his being the *same continued Person.*——Thus we find he might, in given circumstances, acquire the Notion of his *continued Identity*, merely from the *modifications of his own Mind*, without any Notion of any *external* Thing; and I take this to be Evidence that we possess a *substantial* Identity, and not a mere *organic* one; while it is at the same time evident, that the *Identity* of the *material Man* cannot be supposed other than *merely organic*, since the *Substance* of the *Body* cannot be precisely the same in any two successive minutes.

In this way it appears, that *Extension* and *Duration need not of necessity* be learnt as *external* Existences, though they are, *also*, really such; but that we could, in given cases, learn them as *attributes of our Mind*, simply from *its own modifications.*———I have indeed already advanced, in the Discussion, that whether, or no, Extension and Duration have any independent Existence, *we*, at any rate, could have *no certain* Evidence of this, if we were not *ourselves extended* and *permanent;* therefore our being able to conceive these things *from our own modifications*, is at least *as good* Evidence that *we* exist with such attributes, as that these Things also exist independent of us.

Moreover, besides the Fact of our being thus able to learn *Extension* and *Duration* from *our own* modifications, I must add, that when we turn to the very different Evidence of our Extension which we get in dealing with *external* Objects, *as such*, we find the conscious Fact of Feeling from *co-existent impulses*, and the co-operation of Body and Mind *by common Process*, both which form a totally different kind of proof of our Extension; with regard to which proof the following remark should be kept in view.———Not only have I, in various instances, shewn the *co-existence* of Feelings from impulses, and likewise the existence of numerous distinct synchronous Ideas; but I have also remarked, that if the contrary be supposed, that is, if it be supposed true (as some few have said) that we cannot acquire the Notion of tangible Extension except by *successive moving of the hands* over Bodies—and cannot perceive more of any Visible Figure than *one sensible Point at once*,—then it follows, that we learn Extension only from an *alternation* of *Points* of *contact*, connected by *ligaments* of *Memory;* in which Process we must at *every Point* of a Figure lose our *actual cognizance of sensual Fact*, and trust to an interval of *remembrance*.———If such a mode of *learning Extension* be supposed, well may the Sceptic start the *possibility* of *deception* at every interval; but, fortunately, the supposition is as void of defence, as it is uncomfortable in contemplation. It however becomes obvious, that our only *rigid* and *proper* Evidence of the *real* Existence of Extension, is the Fact of *co-existent* impulses; which Fact, when acknowledged, while it certifies the Extension of the pressing Body, *necessarily* involves the inference of the Extension of the *Percipient.*

With regard to Dr. *Hutcheson's* discovery (afterwards employed by Dr. Reid, who has thereby carried Philosophy, as I conceive, aside) it remains to be remarked, that I have so far assented as to argue, that our sense of *co-existent* impulses, had with Sight, or with Touch, is certainly *something more* than the *simple specific* Sensation of Colour, or of gross Feel; but, I at the same time advanced a Fact, which neither Hutcheson nor Reid appear to have in the least adverted to in this case, which is, that *Sensations are not simple* Affections, but, on the contrary, almost every Sensation consists of at least *two*, or *more*, *conjoined primary* Feelings, though occasioned by *one impulse.* It is a Fact, which no Philosopher perhaps will dispute, that many of our impulses of Vision, or of Touch, give, *each* of them, not only the *specific* Sensation of Colour, or of Touch, but *together* with this *a Sensation* of *Pleasure*, or of *Pain.*——No Feeling can be more truly *a Sensation* than the *Pleasure* had with the Colour of a rose, or than the *Pain* received with the Touch of a blow; and yet the *Pleasure*, here, is *foreign* to *Rose pink*, as the *Pain* is foreign to the *Touch* of a *club.* Since then it must be acknowledged, *by all parties*, that we do from *one* simple impulse, receive at least *two Sensations* quite foreign to each other, what should hinder our receiving a *Third primary Feeling* foreign to both, which I affirm we do receive when we have a *sense of co-existent* or *extended* impulses? No man will pretend to say that we *only guess*, or *infer*, that a Rose is extended, any more than we guess that it is *Pink*, or, of a *pleasant Odour*.—We *feel* that it *primarily betrays* Extension, as truly as we feel that it betrays Colour, or Smell.———Be it however observed, I am not here arguing to *prove* that the Feeling is primary; for that has been already sufficiently shewn.—The object here is *merely* to shew that Dr. Hutcheson's discovery was by no means complete, nor clear; and that, when properly investigated, it makes nothing against the *primary* claim of the Feeling in question, since *most of our Sensations are complex conscious Facts.*

It remains, that if the present view of the subject be found to stand investigation, the Philosophy herein opposed should turn and recover the ground which has been abandoned; and thus I trust it might safely be enabled to pursue the only possible road to discovery, without favouring the errors which it has had the real merit of exposing.

FINIS.

London: Stereotyped and Printed by David Cock and Co. 75, Dean-street, Soho.

4 gr
W

THE NEW YORK PUBLIC LIBRARY
REFERENCE DEPARTMENT

This book is under no circumstances to be taken from the Building

form [illegible]